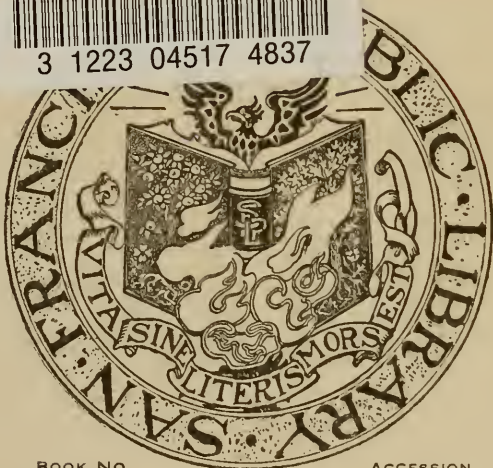


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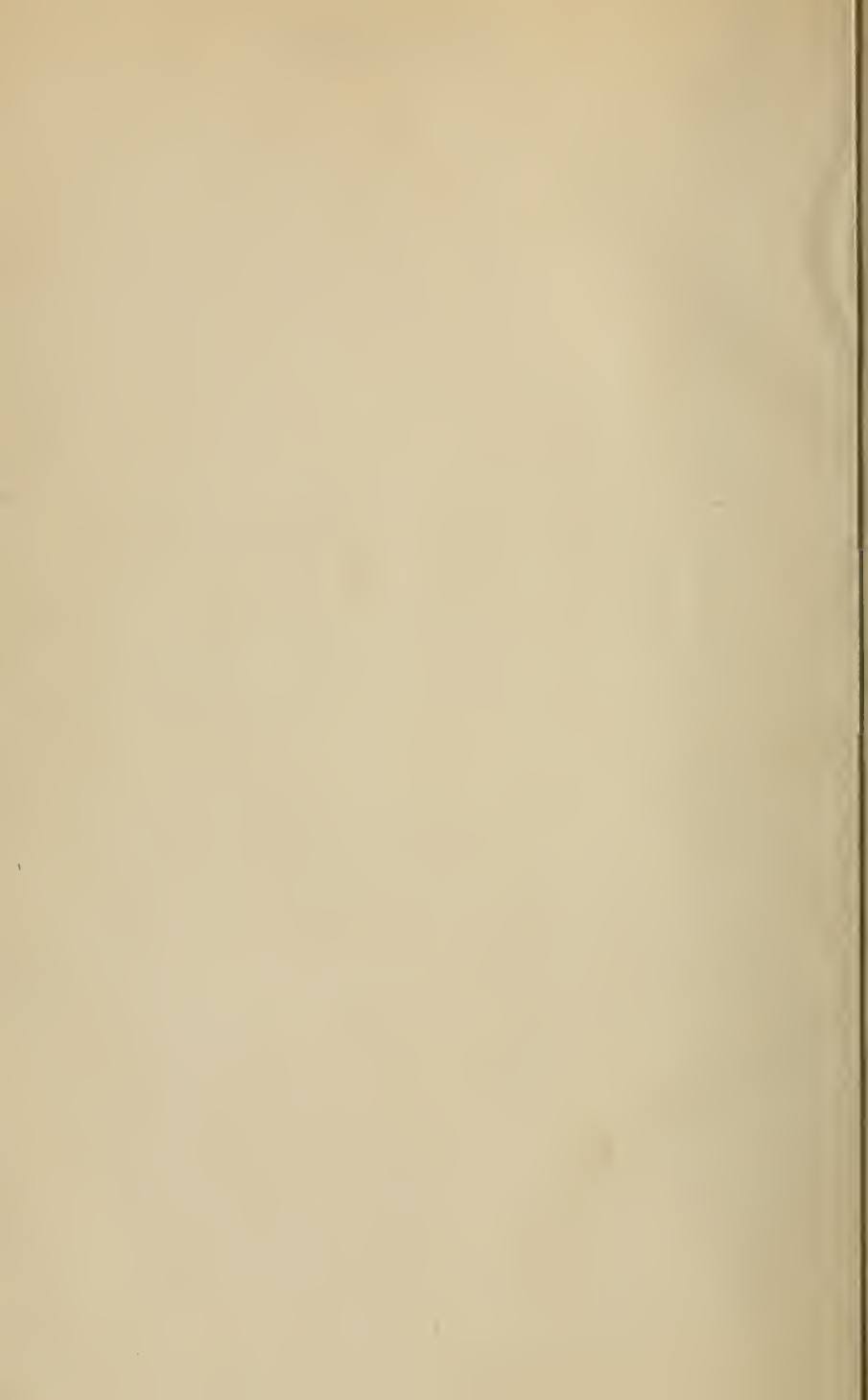
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DEPARTMENT OF PUBLIC SCHOOLS,

CITY AND COUNTY OF SAN FRANCISCO.

TWENTY-FOURTH ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC SCHOOLS

FOR THE

SCHOOL YEAR ENDING JUNE 30, 1877.



SPAULDING & BARTO, PRINTERS, "Scientific Press" Job Printing Office,
414 Clay Street.
1877.

MEMBERS OF THE BOARD OF EDUCATION, OFFICERS AND STANDING COMMITTEES, FOR THE SCHOOL YEAR

ENDING JUNE 30, 1877.

PRESIDENT, - - - JOSEPH CLEMENT.

MEMBERS.

JOS. CLEMENT.....710 Washington St. Dw1. 526 Green Street.
FISHER AMES.....17 City Hall, third floor. Dw1. 2624 Sacramento Street.
T. M. EDWARDS..N. E. cor. Kearny and Jackson. Dw1. N. E. cor. Broadway and Buchanan.
N. SCHEELINE.....212 Pine Street. Dw1. 1503 Larkin Street.
O. F. VON RHEIN.....638 Market Street. Dw1. 2230 Mission Street.
W. A. PHILLIPS.....Cor. Steuart and Folsom Sts. Dw1. 312 Page Street.
D. B. TODD.....Cor. Railroad and 12th Avenues. Dw1. cor. Railroad and 12th Avenues.
ROBERT HAIGHT.....226 Front Street. Dw1. 130 Second Street.
H. M. BLACK.....851 and 853 Market Street. Dw1. 855 Market Street.
A. A. O'NEIL.....652 Washington Street. Dw1. 301 Lombard Street.
B. HAGAN.....316 California Street. Dw1. 902 O'Farrell Street.
GEORGE TAIT.....

Superintendent of Public Schools, H. N. BOLANDER.....22 City Hall.
Deputy Supt. Public Schools.....DUDLEY C. STONE22 City Hall.
Secretary.....GEORGE BEANSTON.....22 City Hall.
Assistant Secretary.....C. A. CLINTON.....22 City Hall.
Assistant Secretary.....GEO. WADE.....22 City Hall.
Messenger.....JAMES DUFFY.....22 City Hall.

STANDING COMMITTEES, 1877.

CLASSIFICATION—Directors Tait, Ames, Hagan, President and Superintendent.

RULES AND REGULATIONS—Directors O'Neil, Scheeline and Phillips.

EVENING SCHOOLS—Directors Scheeline, Haight and Todd.

SALARIES—Directors Von Rhein, Edwards and Ames.

FINANCE—Directors Hagan, Todd and Tait.

FURNITURE AND SUPPLIES—Directors Black, Von Rhein and Edwards.

JANITORS—Directors Todd, Black, Phillips and Superintendent.

MUSIC AND DRAWING—Directors Edwards, Hagan and Scheeline.

PRINTING—Directors Haight, O'Neil and Black.

SCHOOL HOUSES AND SITES—Directors Phillips, Von Rhein and Haight.

JUDICIARY—Directors Ames, Tait and O'Neil.

COSMOPOLITAN SCHOOLS—Directors Von Rhein, Hagan and Tait.

REPORT

OF THE

SUPERINTENDENT OF COMMON SCHOOLS.

OFFICE OF THE SUPERINTENDENT OF COMMON SCHOOLS, }
San Francisco, July 1, 1877. }

*To the Honorable the Board of Supervisors
of the City and County of San Francisco:*

GENTLEMEN—In accordance with law, I submit to you the following report on the condition of the finances of the School Department for the school and fiscal year ending June 30, 1877, and on the educational condition and wants of the Department:

GENERAL STATISTICS.

Population of the city (U. S. Census, 1870).....	150,005
Estimated population, 1877.....	301,020
Number of youth in the city under seventeen years of age, June 30, 1877.....	80,245
Increase for the year	8,809
Number of youth in the city between five and seventeen years of age who are entitled by law to draw public money	53,210
Increase for the year	6,972
Number of children between six and seventeen years of age who are entitled to attend the public schools ...	49,404
Increase for the year.....	7,117

Number of children between five and six years of age who will be entitled to attend the public schools during the next year.....		3,806
Decrease for the year.....	145	
Whole number of different pupils enrolled during the year in all the public schools.....		37,286
Increase for the year.....	3,257	
Whole number of boys enrolled in all the public schools during the year.....		19,941
Increase for the year.....	1,946	
Whole number of girls enrolled in all the public schools during the year.....		17,347
Increase for the year.....	1,313	
Average number belonging to the public schools.....		25,884
Increase for the year.....	1,734	
Average daily attendance of pupils in all the public schools.....		24,899
Increase for the year.....	2,138	
Average daily attendance of boys in all the public schools.....		12,663
Increase for the year.....	899	
Average daily attendance of girls in all the public schools.....		12,236
Increase for the year.....	1,239	
Number attending private and church schools during the year (not including Chinese), as reported by the Census Marshals in June, 1877.....		6,984
Increase during the year.....	329	
Number of pupils attending public and private schools during the year (not including Chinese), as reported by the Census Marshals in June, 1877.....		38,653
Increase during the year.....	3,364	
Number of children between five and seventeen years of age (not including Chinese) who have not attended school at any time during the year, as reported by the Census Marshals in June, 1877.....		14,557
Increase during the year.....	4,608	
Average percentage of attendance of all the public schools.....		96.1

SCHOOL ATTENDANCE.

Total enrollment in High Schools.....	1,060
Total enrollment in Grammar Schools.....	14,410
Total enrollment in Primary Schools.....	18,434

Total enrollment in Evening Schools.....		3,382
Average number belonging to High Schools		883
Increase for the year.....	237	
Average number belonging to Grammar Grades.....		6,400
Increase for the year	1,820	
Average number belonging to Primary Grades.....		17,616
Increase for the year.....	576	
Average number belonging to Evening Schools.....		985
Increase for the year	101	
Average daily attendance in the High Schools		841
Increase for the year	221	
Average daily attendance in the Grammar Grades		6,087
Increase for the year....	761	
Average daily attendance in the Primary Grades.....		16,544
Increase for the year....	581	
Average daily attendance in the Evening Schools		793
Increase for the year..	307	
Percentage of attendance in the High Schools.....		95.2
Percentage of attendance in the Grammar Grades.....		95.1
Percentage of attendance in the Primary Grades		93.9
Percentage of attendance in the Evening Schools.....		80.5
Average daily attendance per teacher in the High Schools		31
Average daily attendance per teacher in the Grammar Schools....		43
Average daily attendance per teacher in the Primary Schools....		46
Average daily attendance per teacher in the Evening Schools		24

SCHOOL HOUSES.

Total number of school buildings used by the Department..	56
Number of buildings for High Schools.....	3
Rooms, 38; Hall, 1.	
Number of buildings for Grammar Schools.....	14
Rooms, 216; Hall, 1.	
Number of buildings for Mixed Schools. .	9
Rooms, 48.	
Number of buildings for Primary Schools.....	30
Rooms, 246; Hall, 1.	
Number of brick buildings owned by the Department.....	8
Number of wooden buildings owned by the Department.....	45
Number of rooms rented.....	32
Number of pupils taught in rented rooms.....	1,795
Amount paid for rent of rooms during the year	\$7,133.65

SCHOOLS AND CLASSES.

Number of classes in the High Schools.....	27
Boys, 6; Girls, 21.	
Number of Grammar Classes.....	164
Number of Primary Classes.....	344
Number of Primary Classes taught in Grammar and Mixed Schools.....	114
Number of Grammar Classes taught in Primary and Mixed Schools.....	33
Number of Evening Classes.....	30
Total number of classes in the Department.....	565

TEACHERS.

Total number of teachers	632
Males, 69; Females, 563.	
Number of Principals	52
High Schools, 2; Grammar Schools, 14; Mixed Schools, 9; Primary Schools, 26; Evening School, 1.	
Number of Principals not required to teach a class	36
Males, 14; Females, 22.	
Number of Vice-Principals	21
Males, 8; Females, 13.	
Number of teachers in High Schools	35
Males, 13; Females, 22.	
Number of teachers in Grammar Schools	228
Males, 20; Females, 208.	
Number of teachers in Mixed Schools	51
Males, 5; Females, 46.	
Number of teachers in Primary Schools	270
Males, 0; Females, 270.	
Number of teachers in Evening Schools.....	34
Males, 24; Females, 10.	
Number of Teachers of French.....	14
Number of Teachers of German.....	21
Teacher of Latin and Greek.....	1
Number of Special Teachers.....	14
Music, 7; Drawing, 5; Military Drill, 1; Gymnastics, 1.	

EXPENDITURES.

Total expenses for the year ending June 30, 1877.....		\$732,324 17
Decrease for the year	\$135,430 72	
Teachers' salaries.....		599,388 76
Increase for the year.....	41,951 54	

Janitors' salaries.....		35,634 05
Increase for the year.....	881 91	
Census Marshals.....		1,764 00
Increase for the year.....	262 00	
Water.....		5 00
Decrease for the year.....	164 99	
School text-books.....		4,258 36
Increase for the year.....	852 12	
Stationery and school incidentals.....		12,769 43
Decrease for the year.....	10,113 03	
Furniture ..		19,285 27
Decrease for the year.....	9,305 30	
Fuel and Lights.....		5,723 97
Decrease for the year.....	1,250 27	
Rents.....		7,133 65
Decrease for the year.....	3,964 01	
Repairs and Carpenter work.....		37,299 33
Decrease for the year.....	16,577 98	
Incidentals.....		6,868 35
Decrease for the year.....	6,774 31	
Buildings.....		2,194 00
Valuation of city property for the year end- ing June 30, 1877.....		260,576,978 00
Decrease for the year.....	8,528,163 00	
Total amount of revenue for city purposes for the year ending June 30, 1877.....		5,928,371 49
Increase for the year.....	1,609,233 98	
Total income of the School Department for the year ending June 30, 1877, including cash on hand July 1, 1876.....		912,616 16
Increase for the year.....	143,424 89	
State and City tax for 1876-77, on each hun- dred dollars.....	\$2 12 $\frac{5}{10}$	
City school tax on each hundred dollars.....	21 $\frac{6}{100}$ cts.	
Percentage of the total revenue of the School Department on the whole amount of rev- enue raised by the city for the year ending June 30, 1877.....	16.5	
Estimated value of school sites.....		1,550,000 00
Estimated value of school buildings.....		835,000 00
Estimated value of school furniture.....		165,000 00
Estimated value of school libraries.....		11,000 00
Estimated value of school apparatus.....		24,000 00
Total valuation of school property.....		<u>\$2,585,000 00</u>

DETAILED STATEMENT OF THE FINANCES OF THE PUBLIC
SCHOOL DEPARTMENT FOR THE FISCAL YEAR ENDING
JUNE 30, 1877.

RECEIPTS.

From Taxes	\$508,330 02
From State Apportionment	368,609 24
From Poll Taxes.....	65,473 50
From Rent of School Property.....	70 00
From Sale of Old Materials.....	8 50
Total.....	\$942,491 26
Cash on hand July 1, 1876.....	124 90
Total.	\$942,616 16
Less outstanding Warrants July 1, 1876	68,384 60
Total Revenue.....	\$874,231 56

DISBURSEMENTS.

For Teachers' Salaries.....	\$599,388 76
For Janitors' Salaries....	35,634 05
For Census Marshals.....	1,764 00
For Water.....	5 00
For School Text Books.....	4,258 36
For Stationery and School Incidentals....	12,769 43
For Furniture	19,285 27
For Fuel and Lights.....	5,723 97
For Incidentals.....	6,868 35
For Rents.....	7,133 65
For Repairs and Carpenter Work.....	37,299 33
For Buildings ...	2,194 00
Total.....	\$732,324 17
Total Revenue.....	\$874,231 56
Total Expenditures.....	732,324 17
Balance on hand.....	\$141,707 39

ESTIMATED RECEIPTS AND EXPENDITURES OF THE DEPARTMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1878.

ESTIMATED RECEIPTS.

From City Taxes.....	\$373,695 00
From State Apportionment	368,000 00
From Poll Taxes	80,000 00
From balance July 1, 1877	94,000 00
Total	\$915,695 00

ESTIMATED EXPENDITURES.

For Teachers' Salaries...	\$635,000 00
For Janitors' Salaries.....	38,000 00
For Census Marshals.....	2,300 00
For School Text Books.....	6,000 00
For Stationery and School Incidentals.....	20,000 00
For Furniture.....	28,000 00
For Fuel and Lights.....	8,000 00
For Rents.....	10,000 00
For Repairs and Carpenter Work.....	50,000 00
For Incidentals.....	20,000 00
For Buildings.....	98,395 00
Totals	\$915,695 00

SCHEDULE OF TEACHERS' SALARIES, 1877-78.

HIGH SCHOOLS.

	PER MONTH.	PER ANNUM.
Principal Boys' High School.	\$333 33	\$4,000 00
Principal Girl's High School.	333 33	4,000 00
Special teacher of Latin and Greek, Boys' High.	200 00	2,400 00
Special teacher of French and German, Boys' High.	175 00	2,100 00
Special teacher of Natural Sciences, Boys' High.	200 00	2,400 00
Special teacher of Mathematics, Boys' High.	200 00	2,400 00
Assistants in Boys' High School.	175 00	2,100 00
Assistants (Senior Classes) Girls' High School.	150 00	1,800 00
Assistants (Middle Classes) Girls' High School.	150 00	1,800 00
Assistants (Junior Classes) Girls' High School.	125 00	1,500 00
Vice-Principals Girls' High School.	175 00	2,100 00
Special teacher of Natural Sciences, Girls' High.	200 00	2,400 00
Special teacher of Normal Class, Girls' High.	150 00	1,800 00
Special teacher of French and German, Girls' High.	150 00	1,800 00

GRAMMAR SCHOOLS.

	PER MONTH.	PER ANNUM.
Principals of Lincoln and South Cosmopolitan Grammar Schools.	\$225 00	\$2,700 00
Principals of Denman, Rincon, Hayes Valley, Valencia, Eighth Street and Washington Grammar Schools.	200 00	2,400 00
Principals of North Cosmopolitan, Broadway, Union, Spring Valley, Geary and Mission Grammar Schools.	185 00	2,220 00
Vice-Principals of said Schools.	150 00	1,800 00
Holders of First Grade Certificates, teaching Third and Fourth Grade Classes, exclusively for boys.	75 00	900 00
Holders of First Grade Certificates, teaching other Classes, Third and Fourth Grades.	72 50	870 00
Holders of Second Grade Certificates, teaching Third and Fourth Grade Classes, exclusively for boys.	72 50	870 00
Holders of Second Grade Certificates, teaching other Classes, Third and Fourth Grades.	70 00	840 00
Holders of First Grade Certificates, teaching Second Grade Classes of boys exclusively.	85 00	1,020 00
Holders of First Grade Certificates, teaching other Classes, Second Grades.	77 50	930 00
Holders of First Grade Certificates, teaching First Grade Classes of boys exclusively.	92 50	1,110 00
Holders of First Grade Certificates, teaching other Classes, First Grades.	85 00	1,020 00

NOTE.—Teachers of First or Second Grade Classes must be holders of First Grade Certificates, and teachers of Third or Fourth Grade Classes must be holders of First or Second Grade Certificates. No teachers shall be employed in Grammar Classes, except those who have had two years' experience in teaching.

OF COMMON SCHOOLS.

9

PRIMARY SCHOOLS.

	PER MONTH.	PER ANNUM.
Principals having eight Classes or more	\$150 00	\$1,800 00
Principals having five Classes and less than eight.....	125 00	1,500 00
Principals having four Classes or less.....	100 00	1,200 00

ASSISTANTS.

	PER MONTH.	PER ANNUM.
<p>Holders of Third Grade Certificates, who have had no experience in teaching:</p> <p>First year.....</p> <p>Second year.....</p> <p>Third year.....</p>	<p>\$50 00</p> <p>55 00</p> <p>60 00</p>	<p>\$600 00</p> <p>660 00</p> <p>720 00</p>
<p>Holders of Second Grade Certificates, who have had no experience in teaching:</p> <p>First year.....</p> <p>Second year.....</p> <p>Third year.....</p>	<p>55 00</p> <p>60 00</p> <p>65 00</p>	<p>660 00</p> <p>720 00</p> <p>780 00</p>
<p>Holders of First Grade Certificates, who have had no experience in teaching:</p> <p>First year.....</p> <p>Second year.....</p> <p>Third year.....</p>	<p>60 00</p> <p>65 00</p> <p>70 00</p>	<p>720 00</p> <p>780 00</p> <p>840 00</p>

NOTE.—Teachers who have taught two years in any public school in the United States, will be credited with that experience on entering this Department, and will enter on the advanced salary according to Grade of Certificate. This schedule for the salaries of primary assistants shall apply to those teachers only whose salaries will thereby be increased, and to teachers hereafter to be elected; but it shall not apply so as to occasion the reduction of the salaries of any teachers heretofore elected.

SPECIAL SCHOOLS.

	PER MONTH.	PER ANNUM.
Principal of Evening School.....	\$75 00	.....
Vice-Principal of Evening School.....	65 00	.....
Assistants of Evening School.....	50 00	.....

REPORT OF THE SUPERINTENDENT

OUTSIDE AND UNCLASSIFIED SCHOOLS.

	PER MONTH.	PER ANNUM.
Principal of South San Francisco School.....	\$150 00	\$1,800 00
Principal of Potrero School.....	125 00	1,500 00
Principal of Fairmount School.....	125 00	1,500 00
Principal of Ocean House School.....	100 00	1,200 00
Principal of Point Lobos School.....	100 00	1,200 00
Principal of West End School.....	100 00	1,200 00
Principal of Laguna Honda School....	100 00	1,200 00

SPECIAL TEACHERS OF LANGUAGES.

	PER MONTH.	PER ANNUM.
Holders of First Grade Certificates in German or French, teaching in Grammar Schools.....	\$100 00	\$1,200 00
Holders of First Grade Certificates in either German or French, teaching in Primary Schools.....	80 00	960 00
Holders of Second Grade Certificates in German or French...	75 00	900 00
Holders of Third Grade Certificates in German or French...	70 00	840 00
Assistants teaching English and German or French, extra...	10 00	120 00

TEACHERS OF MUSIC AND DRAWING.

	PER MONTH.	PER ANNUM.
Principal teacher of Drawing.....	\$200 00	\$2,400 00
Principal teacher of Music.....	175 00	2,100 00
Assi-tant teachers of Drawing.....	150 00	1,800 00
Assistant teachers of Music in Grammar Grades.....	150 00	1,800 00
Assistant teachers of Music in Primary Grades.....	125 00	1,500 00

GENERAL RULE OF INCREASE OF SALARIES ON ACCOUNT OF EXPERIENCE IN
TEACHING IN THE PUBLIC SCHOOLS OF SAN FRANCISCO.

	PER MONTH.	PER ANNUM.
Increase at the end of four years.....	\$5 00	\$60 00
Increase at the end of seven years.....	7 50	90 00
Increase at the end of ten years.....	10 00	120 00

This shall apply to all assistants now elected, according to the time of their service.

COMPARATIVE EXPENSES OF THE PUBLIC SCHOOLS AND THE TOTAL
EXPENSES OF THE CITY.

YEARS.	Total Expense of the City.	Total Expense of the School Department.	Per cent. of Expen- diture for School Purposes.
1852.....		\$23,125 00	
1853.....		35,040 00	
1854.....		159,249 00	
1855.....		136,580 00	
1856.....		125,064 00	
1857.....		92,955 01	
1858.....		104,808 00	
1859.....		134,731 00	
1860.....	\$1,142,290 89	156,407 00	13
1861.....	826,012 33	158,855 00	19
1862.....	812,569 25	134,567 00	16
1863.....	1,387,806 12	178,929 00	13
1864.....	1,495,906 32	228,411 00	16
1865.....	1,819,078 52	346,862 00	19
1866.....	2,192,918 79	361,668 00	17
1867.....	2,163,356 02	507,822 00	23.4
1868.....	2,117,786 97	415,839 00	19.6
1869.....	2,294,810 05	400,842 00	17.4
1870.....	2,460,633 27	526,625 90	21.4
1871.....	2,543,717 15	705,116 00	27.7
1872.....	2,726,266 39	668,262 00	24.5
1873.....	3,155,015 99	611,818 00	19.4
1874.....	3,197,808 30	689,022 00	21.5
1875.....	4,109,457 65	707,445 36	17.2
1876.....	3 992,187 16	867,754 89	21.7
1877.....	3,500,100 00	732,324 17	20.9
Total.....		\$9,210,122 32	

CENSUS REPORT FOR JUNE, 1877.

WARDS	NATIVITY OF CHILDREN.					
	Foreign Born.....	Native Born. Both Parents Foreign.	Native Born. One Parent Foreign..	Native Born. Native Parents.....		
	Blind children between 5 and 21 years of age.....	4	....	1	....	....
	Deaf and Dumb children between 5 and 21 years.	....	....	....	....	....
	Mongolians between 5 and 17 yrs attending school.	....	....	....	....	....
	Mongolians under 17 years of age.....	104	....	38	....	....
	Between 5 and 17 years who have not atten. school at any time during school year..	Indian	Colored	White.	....	....
	Between 5 and 17 years who have attended Private Schools only during past year....	Indian	Colored	White.	....	....
	Between 5 and 17 years who have attended Public Schools during past year....	Colored	White.	....	....	....
	Number of children under 5 years of age.....	Colored	White.	....	....	....
	Indian children bet. 5 and 17 yrs. of age who live under guardianship of white per.	Total.	Girls..	Boys..	....	....
	Number of Negro children between 5 and 17 years of age.....	Total..	Girls..	Boys..	....	....
	Number of White children between 5 and 17 years of age.....	Total..	Girls..	Boys..	....	....
	Children between 16 and 17 years of age.....	Girls..	Boys..	....	....	....
	Children between 5 and 6 years of age.....	Girls..	Boys..	....	....	....
1st.....	188	148	146	120	1468	2723
2d.....	84	56	59	104	1901	3846
3d.....	13	17	23	10	144	278
4th.....	79	67	57	74	1300	1371
5th.....	7	4	6	6	135	114
6th.....	17	30	21	24	769	779
7th.....	75	42	8	9	1067	1007
8th.....	161	139	102	126	1949	2124
9th.....	173	179	109	112	2079	2139
10th.....	488	458	290	213	3661	4015
11th.....	432	299	231	256	7091	7237
12th.....	364	286	210	259	4717	4525
Total.	2081	1725	1172	1313	26286	26662

THE FOLLOWING IS A COMPARATIVE STATEMENT OF ALL THE CHILDREN IN
THE CITY SINCE 1859.

Under eighteen years of age:

June, 1859.....	13,858
“ 1860.....	15,409
“ 1861.....	20,933
“ 1862.....	22,044
“ 1863.....	25,952
“ 1864.....	30,480
“ 1865.....	32,529

Under fifteen years of age:

June, 1866... ..	30,675
“ 1867.....	34,889
“ 1868.....	39,728
“ 1869.....	41,488
“ 1870.....	45,617
“ 1871.....	46,610
“ 1872.....	52,320
“ 1873.....	54,469

Under seventeen years of age:

June, 1874.....	60,552
“ 1875.....	64,909
“ 1876.....	71,436
“ 1877.....	80,245

THE FOLLOWING IS A COMPARATIVE STATEMENT OF THE WHOLE NUMBER ENROLLED, AND THE AVERAGE DAILY ATTENDANCE OF ALL THE PUBLIC SCHOOLS SINCE 1852.

	NUMBER ENROLLED.	AVERAGE DAILY ATTENDANCE.
During the year ending October 31, 1852.....	2,132	445
During the year ending October 31, 1853.....	2,870	703½
During the year ending October 31, 1854.....	4,199	1,011½
During the year ending October 31, 1855.....	4,694	1,484
During the year ending October 31, 1856.....	3,370	2,516
During the year ending October 31, 1857.....	4,637	2,155
During the year ending October 31, 1858.....	5,273	2,521
During the year ending October 31, 1859.....	6,001	2,829
During the year ending October 31, 1860.....	6,108	2,837
During the year ending October 31, 1861.....	6,674	3,377
During the year ending October 31, 1862.....	8,203	3,794
During the year ending October 31, 1863.....	8,979	4,389
During the year ending October 31, 1864.....	10,981	5,470
During the year ending October 31, 1865*.....	.....	6,718
During the year ending June 30, 1866*.....	.....	8,131
During the year ending June 30, 1867*.....	.....	10,177
During the year ending June 30, 1868.....	17,426	11,871
During the year ending June 30, 1869.....	19,885	13,113
During the year ending June 30, 1870.....	22,152	15,994
During the year ending June 30, 1871.....	26,406	16,978
During the year ending June 30, 1872.....	27,664	18,272
During the year ending June 30, 1873.....	27,772	18,530
During the year ending June 30, 1874.....	29,449	19,434
During the year ending June 30, 1875.....	31,128	21,014
During the year ending June 30, 1876.....	34,029	22,761
During the year ending June 30, 1877.....	37,286	24,899

*No record kept of the number enrolled.

PERCENTAGE OF ATTENDANCE ON THE AVERAGE NUMBER BELONGING.

1860.....83	1869.....92.7
1861.....90	1870.....94
1862.....90	1871.....94
1863.....91	1872.....94.2
1864.....92	1873.....94.4
1865.....92.9	1874.....93.3
1866.....93.5	1875.....93.7
1867.....93.8	1876.....94.2
1868.....93¾	1877.....96.1

REPORT OF THE RESULTS OF THE ANNUAL EXAMINATION OF THE SCHOOLS, MAY, 1877.

SCHOOLS.	FIRST GRADE.			SECOND GRADE.			THIRD GRADE.		
	No. Examined.....	No. Promoted.....	No. Failed.....	No. Examined.....	No. Promoted.....	No. Failed.....	No. Examined.....	No. Promoted.....	No. Failed.....
Denman Grammar.....	127	126	1	127	118	9	199	164	35
Lincoln Grammar.....	72	69	3	139	105	34	177	130	47
Rincon Grammar.....	41	38	3	73	67	6	105	93	12
Washington Grammar.....	26	21	5	48	30	18	53	47	6
Union Grammar.....	20	10	10	35	22	13	46	26	20
Broadway Grammar.....	42	36	6	56	37	19	46	25	21
Spring Valley Grammar.....	29	26	3	31	31	.....	47	46	1
Hayes Valley Grammar.....	66	56	10	88	76	12	149	137	12
South Cosmopolitan Grammar	101	98	3	122	99	23	217	176	41
North Cosmopolitan Grammar	34	33	1	48	47	1	98	90	8
Valencia Street Grammar.....	45	37	8	107	100	7	152	142	10
Eighth Street Grammar.....	33	27	6	27	27	.....	134	100	34
Mission Grammar.....	40	35	5	51	51	.....	89	83	6
Geary Street Grammar.....	28	26	2	56	56	.....	73	66	7
Model.....	39	38	1	43	41	2	48	44	4
South San Francisco.....	5	5	.....	11	10	1	10	8	2
Potrero.....	.....	.....	.....	10	10	.....	18	17	1
Bush Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Cosmopolitan Primary.....	.....	.....	.....	.....	.....	.....	40	37	3
Columbia Street Primary.....	.....	.....	.....	.....	.....	.....	14	12	2
Lincoln Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Market Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring Valley Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Market and Seventh St. Prim.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mission Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tehama Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Broadway Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fourth Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Silver Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tyler and Jones Sts. Primary.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pine and Larkin Sts. Primary.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greenwich Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hayes Valley Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shotwell Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eighth Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Powell Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tyler Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West End.....	.....	.....	.....	3	3	.....	2	2	.....
Fairmount.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Noe and Temple Sts.....	.....	.....	.....	.....	.....	.....	6	6	.....
Point Lobos.....	1	1	.....	1	1	.....	.....	.....	.....
Ocean House.....	.....	.....	.....	.....	.....	.....	2	2	1
Laguna Honda.....	2	1	1	5	4	1	.....	.....	.....
Laguna Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Castro Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	751	683	68	1081	935	146	1725	1452	273

RESULT OF ANNUAL EXAMINATION—CONTINUED.

SCHOOLS.	FOURTH GRADE.			FIFTH GRADE.			SIXTH GRADE.		
	No. Examined.....	No. Promoted.....	No. Failed.....	No. Examined.....	No. Promoted.....	No. Failed.....	No. Examined.....	No. Promoted.....	No. Failed.....
Denman Grammar.....	157	131	26	114	100	14	55	41	14
Lincoln Grammar.....	304	198	106	199	162	37	59	46	13
Rincon Grammar.....	166	150	16	79	52	27	45	37	8
Washington Grammar.....	79	66	13	82	70	12	92	60	32
Union Grammar.....	74	58	16	47	37	10	95	77	18
Broadway Grammar.....	82	36	46	145	123	22	49	28	21
Spring Valley Grammar.....	51	50	1	92	92	.....	89	75	14
Hayes Valley Grammar.....	192	151	41	167	140	27	177	143	34
South Cosmopolitan Grammar.....	192	157	35	117	91	26	62	48	14
North Cosmopolitan Grammar.....	125	88	37	95	69	26	104	80	24
Valencia Street Grammar.....	187	151	36	145	134	11	121	112	9
Eighth Street Grammar.....	153	123	30	107	95	12	149	137	12
Mission Grammar.....	157	115	42	151	133	21	64	57	7
Geary Street Grammar.....	104	100	4	90	74	16	128	102	26
Model.....	98	86	12	105	88	17	117	100	17
South San Francisco.....	17	13	4	48	38	10	65	37	28
Potrero.....	20	17	3	44	32	12	34	27	7
Bush Street Primary.....	86	75	11	85	73	12	142	141	1
South Cosmopolitan Primary.....	129	95	34	101	90	11	147	116	31
Columbia Street Primary.....	60	43	17	99	54	45	107	86	21
Lincoln Primary.....	.....	.....	.....	103	101	2	91	89	2
Market Street Primary.....	.....	.....	.....	65	57	8	103	96	7
Spring Valley Primary.....	55	44	11	48	36	12	42	34	8
Market and Seventh St. Prim.....	.....	.....	.....	36	30	6	64	34	30
Mission Primary.....	.....	.....	.....	.....	.....	.....	124	101	23
Tehama Primary.....	.....	.....	.....	78	67	11	136	112	24
Broadway Primary.....	.....	.....	.....	.....	.....	.....	45	40	5
Fourth Street Primary.....	.....	.....	.....	38	38	.....	93	65	28
Silver Street Primary.....	.....	.....	.....	58	58	.....	114	88	26
Tyler and Jones Sts. Primary.....	.....	.....	.....	.....	.....	.....	35	34	1
Pine and Larkin Sts. Primary.....	.....	.....	.....	78	72	6	89	81	8
Greenwich Street Primary.....	.....	.....	.....	53	44	9	99	52	47
Hayes Valley Primary.....	.....	.....	.....	44	34	10	93	70	23
Union Primary.....	.....	.....	.....	47	47	.....	87	76	11
Shotwell Street Primary.....	.....	.....	.....	98	77	21	151	123	28
Eighth Street Primary.....	.....	.....	.....	44	42	2	51	46	5
Powell Street Primary.....	.....	.....	.....	.....	.....	.....	58	57	1
Tyler Street Primary.....	.....	.....	.....	.....	.....	.....	26	25	1
West End.....	5	5	.....	7	7	.....	10	10	.....
Fairmount.....	15	11	4	27	18	9	19	9	10
Noe and Temple Sts.....	10	10	.....	17	16	1	26	24	2
Point Lobos.....	3	2	1	5	5	.....	8	8	.....
Ocean House.....	3	2	1	10	7	3	6	4	2
Laguna Honda.....	8	8	.....	7	6	1	8	8	.....
Laguna Street Primary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson Street Primary.....	.....	.....	.....	28	28	.....	34	34	.....
Castro Street Primary.....	.....	.....	.....	5	4	1	11	8	3
Total.....	2532	1985	547	3011	2541	470	3524	2878	646

RESULT OF ANNUAL EXAMINATION—CONCLUDED.

SCHOOLS.	SEVENTH GRADE.			EIGHTH GRADE.			TOTALS.		
	No. Examined.....	No. Promoted.....	No. Failed.....	No. Examined.....	No. Promoted.....	No. Failed.....	No. Examined	No. Promoted.....	No. Failed.....
Denman Grammar.....	14	9	5	.....	.....	.....	793	689	104
Lincoln Grammar.....	.....	.....	.....	.....	.....	.....	950	710	240
Rincon Grammar.....	.....	.....	.....	.....	.....	.....	509	437	72
Washington Grammar.....	86	65	21	30	22	8	496	381	115
Union Grammar.....	65	54	11	49	41	8	431	325	106
Broadway Grammar.....	45	32	13	21	12	9	486	329	157
Spring Valley Grammar.....	78	65	13	301	192	109	718	577	141
Hayes Valley Grammar.....	61	48	13	.....	.....	.....	900	751	149
South Cosmopolitan Grammar.....	62	38	24	.....	.....	.....	873	707	166
North Cosmopolitan Grammar.....	59	43	16	.....	.....	.....	563	450	113
Valencia Street Grammar.....	120	106	14	88	84	4	965	866	99
Eighth Street Grammar.....	159	138	21	112	109	3	874	756	118
Mission Grammar.....	68	58	10	50	46	4	673	578	95
Geary Street Grammar.....	202	152	50	230	133	97	911	709	202
Model.....	123	105	18	112	104	8	685	606	79
South San Francisco.....	82	26	56	54	39	15	292	176	116
Potrero.....	34	34	.....	34	16	18	194	153	41
Bush Street Primary.....	118	102	16	119	112	7	550	503	47
South Cosmopolitan Primary.....	102	85	17	143	118	25	662	541	121
Columbia Street Primary.....	127	110	17	181	126	45	588	441	147
Lincoln Primary.....	102	102	.....	192	192	.....	488	484	4
Market Street Primary.....	204	161	43	198	180	18	570	494	76
Spring Valley Primary.....	56	25	31	75	64	11	276	203	73
Market and Seventh Primary.....	57	13	44	141	60	81	298	137	161
Mission Primary.....	123	102	21	251	226	25	498	429	69
Tehama Primary.....	106	86	20	311	299	12	631	564	67
Broadway Primary.....	90	59	31	270	158	112	405	257	148
Fourth Street Primary.....	166	148	18	250	176	74	547	427	120
Silver Street Primary.....	162	138	24	327	282	45	661	566	95
Tyler and Jones St. Primary.....	60	60	.....	123	123	.....	218	217	1
Pine and Larkin St. Primary.....	84	70	14	326	247	79	577	470	107
Greenwich Street Primary.....	122	63	89	160	126	34	434	285	149
Hayes Valley Primary.....	101	84	17	138	84	54	376	272	104
Union Primary.....	92	70	22	118	97	21	344	290	54
Shotwell Street Primary.....	107	92	15	84	72	12	440	364	76
Eighth Street Primary.....	141	126	15	239	221	18	475	435	40
Powell Street Primary.....	112	106	6	232	201	31	402	364	38
Tyler Street Primary.....	43	38	5	53	48	5	122	111	11
West End.....	10	10	.....	16	16	.....	53	53	.....
Fairmount.....	47	40	7	78	78	.....	186	156	30
Noe and Temple Streets.....	32	26	6	44	36	8	135	118	17
Point Lobos.....	6	5	1	1	1	.....	25	23	2
Ocean House.....	6	3	3	7	7	.....	34	24	10
Laguna Honda.....	.....	.....	.....	11	11	.....	41	38	3
Laguna Street Primary.....	48	48	.....	164	133	31	212	181	31
Jackson Street Primary.....	32	32	.....	33	33	.....	127	127	.....
Castro Street Primary.....	14	14	.....	25	24	1	55	50	5
Total.....	3728	2991	737	5391	4359	1032	21743	17824	3919

REPORT OF THE CLASSIFICATION AND ATTENDANCE OF THE
PUBLIC SCHOOLS. AUGUST, 1877.

SCHOOLS.	NUMBER OF PUPILS.								
	1st Grade....	2d Grade....	3d Grade....	4th Grade....	5th Grade....	6th Grade....	7th Grade....	8th Grade....	Total.....
Denman Grammar.....	120	179	210	170	93	44	28	38	882
Lincoln Grammar.....	114	164	249	399	192	140	.....	.....	1258
Rincon Grammar.....	77	81	142	174	51	16	.....	.....	541
Washington Grammar.....	46	50	64	100	85	140	50	62	597
Union Grammar.....	31	62	61	93	99	99	59	80	584
Broadway Grammar.....	44	43	82	151	89	49	30	73	561
Spring Valley Grammar.....	35	47	116	121	71	70	107	271	838
Hayes Valley Grammar.....	93	158	184	197	208	145	67	.....	1052
South Cosmopolitan Grammar.....	112	209	220	180	127	64	65	.....	977
North Cosmopolitan Grammar.....	48	86	112	164	125	92	34	.....	661
Valencia Street Grammar.....	106	163	167	273	130	127	135	203	1304
Eighth Street Grammar.....	34	96	153	177	169	219	165	.....	1013
Mission Grammar.....	52	82	140	188	206	76	59	.....	803
Geary Street Grammar.....	62	62	126	124	117	131	103	325	1050
Model.....	47	52	99	102	124	122	135	149	870
South San Francisco.....	9	14	44	41	47	49	80	136	420
Potrero.....	.....	13	26	14	34	41	41	88	257
Bush St. Cosmopolitan Primary.....	.....	.....	94	55	165	109	130	176	729
South Cosmopolitan Primary.....	.....	.....	124	146	151	115	116	197	849
Columbia Street Primary.....	.....	57	.....	107	105	123	127	188	747
Lincoln Primary.....	.....	.....	.....	101	109	132	119	375	836
Market Street Primary.....	.....	.....	.....	53	105	110	183	493	944
Spring Valley Primary.....	.....	.....	.....	.....	59	56	61	113	289
Market and Seventh St. Primary.....	.....	.....	.....	.....	55	54	76	244	429
Mission Primary.....	.....	.....	.....	.....	.....	136	145	479	760
Tehama Primary.....	.....	.....	.....	.....	120	112	168	486	886
Broadway Primary.....	.....	.....	.....	.....	34	94	69	355	552
Fourth Street Primary.....	.....	.....	.....	.....	58	173	117	324	672
Silver Street Primary.....	.....	.....	.....	.....	100	178	201	532	1011
Tyler and Jones Street Primary.....	.....	.....	.....	.....	25	45	49	134	253
Pine and Larkin St. Primary.....	.....	.....	.....	.....	77	106	97	285	565
Greenwich St. Primary.....	.....	.....	.....	.....	59	111	200	382	752
Hayes Valley Primary.....	.....	.....	.....	.....	62	101	126	349	638
Union Primary.....	.....	.....	.....	.....	58	72	110	211	451
Shotwell Street Primary.....	.....	.....	.....	.....	181	119	132	302	734
Eighth Street Primary.....	.....	.....	.....	.....	51	59	103	444	657
Powell Street Primary.....	.....	.....	.....	.....	60	61	125	236	482
Tyler Street Primary.....	.....	.....	.....	.....	32	72	64	109	277
West End.....	6	.....	6	6	9	11	20	33	91
Fairmont.....	.....	.....	15	22	39	50	70	116	312
Noe and Temple Street Primary.....	.....	6	11	19	27	32	35	115	245
Point Lobos.....	2	1	4	7	7	5	1	32	59
Ocean House.....	.....	5	2	9	9	5	12	15	57
Laguna Honda.....	4	.....	8	9	8	.....	13	22	64
Laguna Street Primary.....	.....	.....	.....	.....	.....	61	70	258	389
Jackson Street Primary.....	.....	.....	.....	35	40	31	25	81	212
Castro Street Primary.....	.....	.....	.....	15	15	17	23	68	138
San Bruno.....	.....	.....	.....	.....	.....	.....	.....	101	101
South End.....	.....	.....	.....	.....	10	10	11	40	71
Total.....	1042	1630	2459	3252	3797	3984	3956	8720	28840
Boys' High.....	.....	.....	.....	.....	.....	.....	.....	.....	312
Girls' High.....	.....	.....	.....	.....	.....	.....	.....	.....	853
Evening.....	.....	.....	.....	.....	.....	.....	.....	.....	1288
Grand Total.....	.....	.....	.....	.....	.....	.....	.....	.....	31293

REPORT OF CLASSIFICATION AND ATTENDANCE—CONCLUDED.

[illegible]

NUMBER OF PUPILS STUDYING FRENCH, AUGUST, 1877.

SCHOOLS.	1st Grade..	2d Grade..	3d Grade..	4th Grade.	5th Grade.	6th Grade.	7th Grade.	8th Grade.	Total.....
North Cosmopolitan Grammar.....	11	24	19	36	37	22	11	....	160
South Cosmopolitan Grammar.....	19	24	54	34	26	15	9	....	181
Hayes Valley Grammar.....	6	10	17	21	28	8	12	....	102
Valencia Street Grammar.....	18	29	36	25	29	26	21	18	202
Bush Street Primary.....	....	....	23	4	37	30	17	69	180
Greenwich Street Primary.....	....	....	....	....	14	14	33	120	181
Total	54	87	149	120	171	115	103	207	1,006
Boys' High.....	....	....	....	....	....	....	....	....	160
Girls' High.....	....	....	....	....	....	....	....	....	300
Grand Total.....	....	....	....	....	....	....	....	....	1,466

NUMBER OF PUPILS STUDYING GERMAN, AUGUST, 1877.

SCHOOLS.	1st Grade....	2d Grade....	3d Grade....	4th Grade....	5th Grade....	6th Grade....	7th Grade....	8th Grade....	Total.....
North Cosmopolitan Grammar.....	12	24	31	62	44	41	14	....	228
South Cosmopolitan Grammar.....	73	146	113	104	81	43	44	....	604
Hayes Valley Grammar.....	8	24	56	60	58	52	30	....	288
Valencia Street Grammar.....	12	19	18	58	29	26	27	31	220
Bush Street Primary.....	....	....	38	40	56	59	82	98	373
Greenwich Street Primary.....	....	....	....	....	20	54	75	195	344
South Cosmopolitan Primary.....	....	....	68	100	110	90	98	172	638
Total.....	105	213	324	424	398	365	370	496	2,695
Boys' High.....	....	....	....	....	....	....	....	....	62
Girls' High.....	....	....	....	....	....	....	....	....	44
Grand Total.....	....	....	....	....	....	....	....	....	2,801

Boys' High School—No. of pupils studying both French and German.....	2
Boys' High School—No. of pupils studying Latin.....	99
Boys' High School—No. of pupils studying Greek.....	45
Boys' High School—No. of pupils studying both Latin and Greek.....	45

SCHOOL LIBRARIES.

SCHOOLS.	NUMBER OF VOLUMES.	ESTIMATED VALUE.
Boys' High.....	680	\$450 00
Girls' High.....	600	1,000 00
Denman Grammar.....	756	400 00
Lincoln Grammar.....	1,308	500 00
Rincon Grammar.....	300	200 00
Washington Grammar.....	728	250 00
Union Grammar.....	338	200 00
Broadway Grammar.....	508	800 00
Spring Valley Grammar.....	497	500 00
Hayes Valley Grammar.....	360	200 00
South Cosmopolitan Grammar.....	707	650 00
North Cosmopolitan Grammar.....	1,800	420 00
Valencia Street Grammar.....	550	825 00
Eighth Street Grammar.....	600	400 00
Mission Grammar.....	30	130 00
Geary Street Grammar.....	17	10 00
Model.....	200	225 00
South San Francisco.....	98	25 00
Potrero.....	65	30 00
Bush Street Primary.....	80	60 00
South Cosmopolitan Primary.....	205	40 00
Columbia Street Primary.....	20	12 00
Spring Valley Primary.....	30	25 00
Lincoln Primary.....	128	100 00
Market Street Primary.....	290	230 00
Market and Seventh Street Primary.....	58	20 00
Tehama Primary.....	164	273 85
Broadway Primary.....	116	75 00
Fourth Street Primary.....	130	40 00
Silver Street Primary.....	130	100 00
Tyler and Jones Street Primary.....	20	15 00
Pine and Larkin Street Primary.....	76	100 00
Greenwich Street Primary.....	150	150 00
Hayes Valley Primary.....	78	50 00
Union Primary.....	25	15 00
Shotwell Street Primary.....	90	80 00
Eighth Street Primary.....	132	135 79
Powell Street Primary.....	82	30 00
Tyler Street Primary.....	62	75 00
West End.....	19	4 00
Fairmount.....	26	4 00
Noe and Temple Street.....	12	25 00
Ocean House.....	31	10 00
Laguna Honda.....	44	50 00
Laguna Street Primary.....	18	15 00
Jackson Street Primary.....	26	20 00
Evening.....	129	50 00
Total.....	12,413	\$9,019 64

SUMMARY OF MONTHLY REPORTS OF THE PUBLIC SCHOOLS FOR THE SCHOOL
YEAR ENDING JUNE 30, 1877.

Number of days' attendance of pupils, girls	2,479,042
Number of days' attendance of pupils, boys.....	2,568,599
Number of days' absence of pupils, girls.....	166,123
Number of days' absence of pupils, boys.....	187,078
Number of cases of tardiness of pupils.....	45,731
Average enrollment of pupils, boys.....	14,779
Average enrollment of pupils, girls.....	13,940
Average number belonging.....	25,884
Average daily attendance.....	23,266
New pupils entering without transfers, girls.....	2,830
New pupils entering without transfers, boys.....	8,920
Pupils received by transfer.....	6,956
Pupils transferred.....	4,626
Pupils left.....	6,363
Cases of suspension of pupils.....	205
Cases of truancy.....	1,435
Cases of corporal punishment.....	17,448
Cases of tardiness of teachers.....	2,551
Number of days absence by teachers.....	3,154
Visits to parents by teachers.....	2,903
Visits to classes by School Directors.....	1,988
Visits to classes by Superintendent....	811
Visits to classes by Deputy Superintendent.....	785
Visits to classes by other persons.....	17,077

It may be said, generally speaking, that the past school year has been a very satisfactory one. The reduction of the material to be studied from text-books and to be reproduced by barren recitals, had a wholesome effect on pupils and teachers. Teachers gained more time for explanations and a better presentation of the subject-matter of lessons; and pupils, not being chased over page after page, gained time to comprehend and digest the subject presented. The principles underlying object lessons have been, in most cases, strictly adhered to and better applied. Instead of simply communicating facts, and requiring pupils to write these facts thus communicated in copy books and committing them to memory, pupils were trained in the exercise of their senses, in the habit of observation and manner of expression. The work of the different grades has been more specifically defined and reduced to the essential points of each branch of instruction, thus setting aside the study of a great deal of

indifferent material. Teachers are thereby enabled to dwell sufficiently long on the leading facts of each branch. Especially in arithmetic the burden has been lightened. In the lower grades the whole work consists of a thorough treatment of the numbers from one to twenty-five. For this study requires particularly a careful and skillful treatment at the very beginning, at the very outset. Attempting here too much, or passing too rapidly from point to point, before a full and thorough understanding has been effected, proves fatal. The careful attention paid to penmanship in the lower grades of many of the Primary Schools has been productive of most flattering results, comparing favorably with those even of higher grades. These results demonstrate conclusively what children of so tender an age can accomplish in so short a time under good directions and careful guidance. In drawing and music the results are satisfactory, and in many cases highly praiseworthy, considering the short time allotted to each of these important branches. There is, in my estimation, perhaps too much time spent in music, in teaching technicalities. All text-books on geography contain too many unimportant details to suit the wants of all the different sections of the Union. To avoid the study of these useless, unimportant details, a special pamphlet has been issued, directing the teachers' attention to the most important facts. The same course has been pursued in respect to the study of natural philosophy, physiology, and the art of teaching reading.

Reading—the art of reading understandingly—the most important study pursued in the public schools, has been taught during the last year more systematically, and received a larger share of attention. This channel of future information, when school-days have passed by, cannot receive too much attention and fostering care on the part of those entrusted with the management of our schools. It will be found that teachers frequently attempt to teach elocutionary reading long before the pupils have been enabled to understand the contents of the reading lesson. It is quite easy to discern that the logical part of language has been left to take care of itself. The imitation of the teacher's own beautiful rendering of a piece, not under-

stood by the imitator, is pernicious in the highest degree; is perverting and dulling to the keen sensibility of truthfulness, and prepares the child unconsciously for the incorrect use of language. Very few pupils are destined to become public readers, but all will and must read for the sake of self-instruction and useful information. It must be, therefore, the teacher's first and highest aim to disclose to children the meaning of words, the ideas conveyed, and the thoughts expressed in a proposition. If this important part of the study of language is neglected, how can we expect the successful study of lessons from text-books in the higher grades, where so much text-book study is expected and insisted upon? To this very fact, to this general ignorance of the meaning and signification of words, must be ascribed and attributed the shortcomings of higher instruction. Teachers of High Schools are frequently compelled to do a great deal of elementary teaching before they can successfully attempt the teaching of higher studies.

At the very beginning of teaching beginners to read, the foundation is laid for this thoughtless memorizing of words. That a word is itself a composite body; that it is made up of syllables, and these again of different sounds, represented by signs, terms, letters, constantly re-occurring in a different order; and that words stand for or represent ideas is not disclosed to pupils from the very start, does not form a part of teaching how to read. All is sacrificed for obtaining, as soon as possible, a mechanical fluency in reading, to be followed by drill in so-called elocutionary reading. The consequences are quite apparent. The proper spelling of words continues to be through life a difficult task, because children were not trained in discerning, scrutinizing, and dwelling, with their mental eye, upon the component parts of words. Composition suffers equally from this mechanical drill, for when the meaning of words is not keenly felt how can the feeling of language be developed and cultivated? I have observed children in the lower classes of Primary Schools carefully pointing at the words of one paragraph, word for word, while they were actually reciting the words of another. I have noticed children turning the page over after they had already recited the words of the next paragraph on the following page.

When teaching is thus begun, how is it to be wondered at that a girl in a higher grade, having given the definition of a bay, and being asked if she ever saw one, replied quickly, "no;" and yet the school-house she attends stands on a hill overlooking the Bay of San Francisco.

I might continue to cite such cases, demonstrating conclusively that children may be trained to commit to memory words, sentences, paragraphs, and whole lessons, without having the slightest idea of the meaning conveyed. This results from completely ignoring the mental laws, the laws laid down by the Creator himself, for the acquisition of knowledge. The senses, the channels through which ideas only can be acquired by being constantly brought in contact with actual objects of the material world, are, as it were, set aside, left unexercised, and a shorter course of acquiring knowledge is adopted, that of simply memorizing. It is true it is a quicker course. It is one by means of which we can make a splendid display, and make the world believe that our pupils have made remarkable progress. But the shortcomings of such a method reveal themselves some day, like all which is wrong, and we stand unmasked before the public as those who are practicing the art of deception.

Those who can not see, and many who are determined not to see, are only too ready to denounce the system of Public Schools a failure. The system is not a failure; it is the most perfect yet devised, and recognized as such by other nations. That it does not accomplish all that is desired is emphatically not the fault of the system, but is owing to various causes, easily set aside if once recognized by the people as pernicious and destructive.

I desire to state, first that the general public expects, in one sense, too much of the system. The general public expects too much by assuming that children, having finished the prescribed course, shall be able to enter successfully into the different occupations pursued in a well-regulated community and earn high wages at the very start. Disappointed in these unfair and unreasonable expectations, the system is at once assailed and denounced as a failure. The professional teacher, however, holds and believes that his work has been faithfully performed when the mind of the graduate is thoroughly disciplined and

well stored with useful knowledge, enabling him to enter as an apprentice any pursuit of life, with a fair prospect of success. To ask more, is asking impossibilities.

One meets, secondly, almost daily, articles in public and educational journals, teeming with suggestions how to improve the efficiency of our schools. A great many supposed causes of their inefficiency are enumerated, and many remedies are suggested. But it seems to me that all shortcomings have but one common source, and this common source is the teacher imperfectly prepared for his work. We fancy and imagine to be able to accomplish the education of our youths by employing persons whose abilities have been tested in point of knowledge only. The idea that a person can teach what he knows is so widely diffused and so thoroughly rooted in public opinion that two other qualifications of equal importance to the teacher to labor successfully are lost sight of, are ignored. The ability to impart knowledge, to instruct according to rational methods, is not ascertained; nor could it be ascertained by means of our present system of examinations. To remedy this defect, the establishment of a Normal Training Department becomes an absolute necessity. All applicants desiring to enter the schools of this city, whether experienced or inexperienced, and irrespective of the certificates they may hold, should be compelled to demonstrate in the Normal Training Department their ability to instruct rationally under the eyes of the faculty, consisting of highly educated teachers. Any one of our large primary schools could be readily converted into such a Training Department, without a considerable increase of expense. An applicant, failing to secure a certificate of ability to instruct, should be considered ineligible to a position in this city. At present, all novices must gain their experience at the expense of the children attending primary classes. But this pernicious custom is aggravated by frequent changes of teachers; for very few teach or intend to teach, on an average, more than two or three years. The Primary Department, the most important in the system, is therefore degraded, in consequence of this pernicious custom, to an experimental station. When Antipater had defeated the Spartans, he demanded of them fifty children for hostages; but the Spartans of-

ferred him, instead of fifty children, *one hundred* of their most prominent and influential citizens. We, however, can afford to reverse the principle here implied. We sacrifice the future welfare of fifty children to benefit by employment one adult, no matter how poorly qualified he or she may be for such a calling. What the great master-minds of all nations have declared to be the most difficult art of all the arts, what must always engross and engage the great thinkers, philosophers and philanthropists of civilized nations—the proper education of children—we vainly assume to accomplish by entrusting it largely to immature minds! Close and careful observers, accustomed to reason from a psychological stand-point, cannot fail to see the crime here committed—cannot fail to see that the startling phenomena which threaten the very social order of society and the existence of free government itself, is in a great measure due to this criminal trifling with the education of children. The truism, “The greatest study for man is man,” has had no bearing on school matters.

I must, thirdly, speak of another qualification of the teacher, usually overlooked or hardly ever questioned—namely, his or her character. I do not allude here to gross immoralities, nor to what is, in the eye of the law, considered criminal. But I allude to the fixed commendable habits, good manners and other praiseworthy qualities, impressed by nature, and which, having become stable and distinctive, form the sum total of a person’s being. The unconscious influence exerted by such a character is so beautifully and so logically delineated in the lecture on “Unconscious Tuition,” by Rev. F. D. Huntington, that I cannot forbear to reprint it here as a part of my report:

UNCONSCIOUS TUITION.

By unconscious tuition, I mean that part of a teacher’s work which he does when he seems not to be doing anything at his work at all. It has appeared to me that some of the most nutritive and emphatic functions of an instructor are really being performed while he seems least to be instructing. To apprehend these fugitive and subtle forces, playing through the business of education with such fine energy, and, if possible, to bring them within the range of a practical dealing and discipline, is the scope of my present design. If the topic should fail of entertainment or profit, it will at least yield me this

negative advantage, that it will not tempt me to traverse any pre-existing debate, or prejudice, or clique, or dogma.

The central thought of my doctrine is based on the presumption that the ultimate and total object of the teacher's profession is not the communication of knowledge; nor even, according to the favorite modern formula, the stimulating of the *knowing faculty*, if by the knowing faculty we understand a faculty quite distinguished and separate from the believing faculty, the sensibility, and the will. It has been generally admitted, for a long time, that education does not consist in inserting facts in the pupil's memory, like specimens in a cabinet, or apples dropped into an empty barrel, or freight stowed in the hold of a ship. But not only must we dismiss those mechanical resemblances, which liken the mind to a store-house, a granary, a museum, or a library; we must also carry our conception of learning above the notion of an agile and adroit brain. Education does not consist in provoking bare intellectual dexterity, any more than in presenting ascertained truth to the intellectual perceptions; nor in both together. Education involves appeals to faith, to feeling, to volition. The realm of positive science shades off on every side—not by abrupt transition, but by imperceptible gradations—into the realm of trust; nor does science consult her dignity more than her modesty when she undertakes to sharpen the partition-line of hostility between knowledge and belief. So does the true training of the mind implicate an engagement of the affections, including taste or the sense of beauty, and love or the sense of good, both the mind's freedom and its harmony being equally dependent on a healthy heart. And so, again, the understanding and the feelings wait on that brave executor, the will; and nobody can be wise who leaves its scholarship neglected.

In a word, in any liberal or Christian acceptance, education is not the training of the mind, but the training of the man. Being the discipline of an organized subject, it is organic in its own nature. No analytical classification can partition off the elements of humanity like the ingredients of a soil. Even of a tree we cannot rear a single branch independently of the others, unless we kill the others back by violence. One-sidedness has been the vice of all systems of education hitherto, and every legitimate advance has been an approach to the recognition of the unity and indivisibility of the educated being as a living and infinite soul.

Let us proceed, on the ground of this principle, with our proper theme. My main propositions are these three: 1st. That there is an educating power issuing from the teacher, not by voice nor by immediate design, but silent and involuntary, as indispensable to his true function as any element in it. 2d. That this unconscious tuition is yet no product of caprice, nor of accident, but takes its quality from the undermost substance of the teacher's character. And 3d. That as it is an emanation flowing from the very spirit of his own life, so it is also an influence acting insensibly to form the life of the scholar.

1. I remind the teacher of a fact, which I presume may have been some

time disclosed to him, in his dealings with almost any truth in its more secret relations, viz., that all true wisdom involves a certain something that is inexpressible. After all you have said about it, you feel that there is something more which you never can say, and there is a frequent sensation of pain at the inadequacy of language to shape and convey—perhaps also the inadequacy of the conceptions to define—that secret and nameless thought, which is the delicious charm and crown of the subject, as it hangs, in robes of glory, before your mind. Any cultivated person, who has never been oppressed by this experience, must be subject, I should say, to dogmatism, pragmatism, conceit, or some other comfortable chronic infirmity. Where the nature is rich and the emotions are generous, there will always be a reverential perception that ideas only partly condescend to be embodied in words. So it is always found that the truest effects of eloquence are where the expression suggests a region of thought, a dim vista of imagery, an oceanic depth of feeling, beyond what is actually contained in the sentences. You have to judge an orator as much by what he leaves out as by what he puts in. He uses words with the true mastery of genius who not only knows how to say exactly and lucidly, and with the fewest sounds, the thing he thinks, but how to make what he does say indicate that diviner part of wisdom which must remain forever unsaid. The cleanest rhetorical directness is united with the strongest sense of mystery. You hear thoughts, perfectly within the range of the understanding, sublimely uttered, and you are made aware of the nearness of a world whose thoughts are more sublimely unuttered. Instances at once occur in Shakspeare, in Sir Thomas Browne, in Dante, and, more than in any other living writer, I think, in Thomas De Quincy. So sings old Marlowe:

“ If all the pens that ever poets held
 Had fed the feeling of their masters' thoughts,
 And every sweetness that inspired their hearts,
 And minds, and muses on admired themes;
 If all the heavenly quintessence they 'still
 From their immortal flowers of poesy,
 Wherein, as in a mirror, we perceive
 The highest reaches of a human wit;
 If these had made one poem's period,
 And all combined in beauty's worthiness,
 Yet should there hover in their restless heads,
 One thought, one grace, one wonder, at the best,
 Which into words no virtue can digest.”

Nature herself gives us a broad hint to the same purpose. Just when she discloses to our admiration any of her grandest pictures or sculptures, she shuts our lips; “My children, be still,” that august schoolmistress sternly says to us, the moment she lifts the veil from before any special majesty or splendor. When we are most moved in any way, she thus prisons our souls in dumb solitude, and makes us feel the utter helplessness of our tongues. If we are presumptuous enough to talk, she secretly rebukes our babbling.

The less imposing and lighter aspects of nature permit us to be sociable; but when her diapason-voice sounds, our impertinent ones must cease. A loquacious company may prattle and jest while they float among the winding straits of a picturesque harbor, shut in by the limitations of that narrow scenery; but, if they have souls within them, they will grow thoughtful and silent as they sail out upon the infinite ocean, amid the sublime simplicity of the waves and the sky. They may chatter and laugh together in the variegated and blooming valley; but when they go up among the eternal hills of God, and look off from those solemn pillars of His heaven, an invisible hand will seem to draw them apart from one another, inspiring them with a wonder that no dialect can articulate. They may gossip in gardens of sunshine, but one roll of celestial thunder hushes them.

I am not pretending that in the ordinary processes of juvenile instruction one often arrives at any such impressive expansion of thought, or any such intensity of feeling. I shall not be so understood. Of course, a class in spelling, a recitation in arithmetic, the grammatical corrections in an exercise in composition, the daily discipline of threescore boys and girls, will seldom raise those vast and reverential sentiments. My purpose here is simply to show that some of the deepest and most powerful impressions are made on our minds, independently of any spoken or written words, by influences, by signs, by associations beyond any speech. And this point lies close to my argument. You know the remark they used to make about Lord Chatham: that everybody felt there was something finer in the man than anything he ever said. We are taught, and we teach, by something about us that never goes into language at all. I believe that often this is the very highest kind of teaching, most charged with moral power, most apt to go down among the secret springs of conduct, most effectual for vital issues, for the very reason that it is spiritual in its character, noiseless in its pretensions, and constant in its operation.

Besides, I do undertake to say, only by the way, that in the teacher's profession, as in every other, we are not to judge of the possibilities, or the limitations of the calling, by its common aspects, or its every-day repetition of task-work. I protest against the superficial and insulting opinion, that, in the education of children, there is no room for the loftiest intellectual enterprise, and no contact with divine and inexpressible wonders. Any teacher that so judges his vocation by its details belittles it. The school-room, no less than the philosopher's laboratory, the studio, or the church itself, opens upward into God's boundless heaven. Each of these very sciences I have named has moral relations, and terminates in spiritual mystery. And when you awaken a feeling of that great truth in your pupil by the veneration, the earnestness, and the magnetic devotion of your own mind, you have done him a service no less essential to the completeness of his education, than when you have informed his understanding of certain scientific facts. Arithmetic, for instance, ascends into astronomy, and there you are introduced to laws of quantity, which make the universe their diagram—to the intellectual magni-

tudes of La Place and Newton—to the unsearchable empire of that religion which feels after the God of Arcturus and the Pleiades. The rules of grammar are only intelligible formularies that lie on the outmost boundary of an inexhaustible study. And the government of your pupils, what is it but the faint and erring endeavor to transfer into that little kingdom you administer the justice and the love which are the everlasting attributes of the Almighty Himself, applying them even there to immortal souls? Let us not wrong the dignity of such an employment by denying its connection with things unspeakable.

I return, however, to the direct path of my subject. And while I maintain that the scholar ought by all means to learn, from the sympathies of the teacher's spirit, that every study he follows is intertwined with moral obligations, and is related to a divine source, in ways which no text-book does or can lay down, I proceed to more specific statements. It is not in respect to particular branches of instruction, but in respect to what we may call the moral power of the teacher's own person, as something, indeed, in which the right action and the best success of all kinds of instruction are bound up, that I affirm the necessity of this unspoken and unconscious influence.

If we enter successively a number of school-rooms, we shall probably discover a contrast something like this. In one we shall see a presiding presence, which it will puzzle us at first sight to analyze or to explain. Looking at the master's movements—I use the masculine term only for convenience—the first quality that strikes us is the absence of all effort. Everything seems to be done with an ease which gives an impression of spontaneous and natural energy; for, after all, it is energy. The repose is totally unlike indolence. The ease of manner has no shuffling and no lounging in it. There is all the vitality and vigor of inward determination. The dignity is at the farthest possible remove from indifference or carelessness. It is told of Hercules, god of real force, that “whether he stood, or walked, or sat, or whatever thing he did, he conquered.” This teacher accomplishes his ends with singular precision. He speaks less than is common, and with less pretension when he does speak; yet his idea is conveyed and caught, and his will is promptly done. When he arrives, order begins. When he addresses an individual or a class, attention comes, and not as if it was extorted by fear, nor even paid by conscience as a duty, but cordially. Nobody seems to be looking at him particularly, yet he is felt to be there, through the whole place. He does not seem to be attempting anything elaborately with anybody, yet the business is done, and done remarkably well. The three-fold office of school-keeping, even according to the popular standard, is achieved without friction and without failure. Authority is secured, intellectual activity is stimulated, knowledge is got with a hearty zeal.

Over against this style of teacher we find another. He is the incarnation of painful and laborious striving. He is a conscious perturbation, a principled paroxysm, an embodied flutter, a mortal stir, an honest human hurly-burly. In his present intention he is just as sincere as the other. Indeed, he tries

so hard that, by one of the common perversions of human nature, his pupils appear to have made up their minds to see to it that he shall try harder yet, and not succeed after all. So he talks much, and the multiplication of words only hinders the multiplication of integers and fractions, enfeebles his government and beclouds the recitation. His expostulations roll over the boys' consciences like obliquely-shot bullets over the ice, and his gestures illustrate nothing but personal impotency and despair.

How shall we account for this contrast? Obviously there is some cause at work in each case other than the direct purpose, the conscious endeavor, the mental attainments, or the spoken sentiments. Ask the calm teacher—him who is the true master—master-workman, master of his place and business—ask him the secret of his strength, and he would be exceedingly perplexed to define it. Tell the feverish one that his restlessness is his weakness, and he will not be able to apply an immediate correction. What are we obliged to conclude, then, but that, in each of these instances, there is going on an unconscious development of a certain internal character or quality of manhood, which has been accumulating through previous habits, and which is now acting as a positive, formative and mighty force in making these boys and girls into the men and women they are to be? And it acts both on their intellectual nature and the moral; for it advances or dissipates their studies, while it more powerfully affects the substance and tendencies of character.

Now there are different organs in our human structure, which serve as media for expressing and carrying on this unspoken and unconscious influence, so that it shall represent exactly what we are. That is, to atone for the defects of language, and moreover to forestall any vicious attempts we might make at deception, the Creator has established certain signs of His own which shall reveal, in spite of our will, the moral secret.

One of these is the temper, or rather that system of nervous network by which temper telegraphs its inward changes to the outward world. The temper itself, in fact, is one of the ingredients in our composition most independent of immediate and voluntary control. Control over it is gained by the will only through long and patient discipline; and so it is an effectual revealer of our real stuff. It acts so suddenly that deliberation has not time to dictate its behavior; and, like other tell-tales, it is so much in a hurry that an after-thought fails to overtake the first message. It lets the hidden man out and pulls off his mask. This temper is doing its brisk publishing business in every school-house. No day suspends its infallible bulletins, issued through all manner of impulsive movements and decisions. Every pupil reads them, for there is no cheating those penetrating eyes. He may not stop to scrutinize, or even state to himself his impression; but he takes it, it enters into him, it becomes a part of himself. By the balm or the irritation, by the sweetness or the sourness, by his tacit admiration or his ugly resistance, he is being fashioned under that ceaseless ministry. It is either the dew of genial skies enriching him, or it is the continual dropping of a very rainy day, which Solomon himself compares to a "contentious woman," though he prob-

ably had not a cross "schoolma'am" in his mind. Nor are these formative phases of temper confined to the two extremes commonly suggested, of anger and amiability. They run through an endless variety of delicate intermediate shadings. They partake of the whole circle of dispositions. They are as many as the degrees of virtue and vice, honor and shame. Every teacher moves through his school and conducts his exercises, a perpetual and visible representation to all under him of some sort of temper. When he least thinks it, the influence keeps going out. The sharpest self-inspection will scarcely inform him, moment by moment, what it is; but his whole value as a guide and companion to the young is determined by it; his whole work is colored by it. Penalties imposed in passion are proverbially the seeds of fresh rebellions, and the relative impressions of milder moods are no less certain. Whatever temper you have suffered to grow up in the gradual habit of years, that will get a daily revelation over your desk as visible as any map on the walls.

Another instrument of this unconscious tuition is the human face. There is something very affecting in the simple and solemn earnestness with which children look into their elders' faces. They know by an instinct that they shall find there an unmistakable signal of what they have to expect. It is as if the Maker had set up that open dial of muscle and fibre, color and form, eye and mouth, to mock all schemes of concealment, and decree a certain amount of mutual acquaintance between all persons as the basis of confidence or suspicion. All the vital spirits of brain and blood are ever sending their swift demonstrations to that public indicator. It is the unguarded rendezvous of all the imponderable couriers of the heart. It is the public playground of all the fairies or imps of passion. If you come before your pupils after dinner, your countenance gross and stupid with animal excess, do you suppose the school will not instinctively feel the sensual oppression, and know Silenus by his looks? A teacher has only partially comprehended the familiar powers of his place who has left out the lessons of his own countenance. There is a perpetual picture which his pupils study as unconsciously as he exhibits it. His plans will miscarry if he expects a genial and nourishing session, when he enters with a face blacker than the blackboard. And very often he may fail entirely to account for a season of rapid and sympathetic progress, which was really due to the bright interpretations and conciliatory overtures glancing unconsciously from his eyes, or subtly interwoven in the lines of frankness and good-will about his lips. The eye itself alone, in its regal power and port, is the born prince of a school-room. He answers a score of questions, or anticipates them, by a glance. "The human countenance," it has been said, "is the painted stage and natural robing-room of the soul. It is no single dress, but wardrobes of costumes innumerable. Our seven ages have their liveries there, of every dye and cut, from the cradle to the bier; ruddy cheeks, merry dimples, and plump stuffing for youth; line and furrow for many-thoughted age; carnation for the bridal morning, and heavenlier paleness for the new-found mother. All the legions of desires and hopes have uniforms and badges there at hand. It is the loom where the inner man

weaves, on the instant, the garment of his mood, to dissolve again into current life when the hour is past. There it is that love puts on its celestial rosy red; there lovely shame blushes and mean shame looks earthy; there hatred contracts its wicked white; there jealousy picks from its own drawer its bodice of settled green; there anger clothes itself in black, and despair in the grayness of the dead; there hypocrisy plunders the rest, and takes all their dresses by turns; sorrow and penitence, too, have sackcloth there; and genius and inspiration, in immortal hours, encinctured there with the unsought halo, stand forth in the supremacy of light."

What then? Can a man look otherwise than nature made him to look? Can he reconstruct his features? Can he resolve his face into beauty by a purpose? I reply, nature made his countenance to reflect the spirit of his life. It is a common maxim that some faces, plainest by the rules of classic symmetry, are noble with moral dignity and radiant with spiritual light. The faces we love to look at, over and over again, must be the really beautiful faces, and these are the faces of lovely persons, no matter about your Juno or Apollo. Said Chrysostom, speaking of Bishop Flavian, who had gone to intercede with the Emperor for the rebellious citizens of Antioch, "*The countenance of holy men is full of spiritual power.*" This kind of beauty, the only real kind, is producible. The soul, such as it is, will shine through. But the completeness of that transformed expression will be seen only where the long patience of self-control, and the holiest sincerity of love, and the slow triumph of unselfish principle, have wrought their interior work, molding the inner man into a nobleness that the outward shape may honestly image.

Another of these unconscious educatory forces is the voice; the most evanescent and fugitive of things, yet the most reliable as a revealer of moral secrets. The voice, I mean now not as an articulate medium of thought—that would be its conscious function, and that we here expressly set aside—but the voice as a simple sound, irrespective of syllables, and by its quality and volume, by tone, modulation, wave, and cadence, disclosing a disposition in the heart. It must have occurred to us all, how brave and long-continued and sore struggles of right with wrong in the conscience, the secret conflict of heaven with hell, Ormuzd with Ahriman in the bosom, may have been the needful preparation that gave one note of the voice, apparently falling as the most careless of acts, its sweet, celestial accent. I have no doubt that the unexplained reason why some persons remain strangely repulsive to us in spite of all resolute efforts to overcome the aversion, may be owing to some uncongenial quality betokened only in the tones of the voice. And it is familiar how the magic of a euphony, made musical and gracious by pity and love, wins wonderful convictions. I remember hearing a thoughtful person, of fine moral intuitions, who had been a little tormented by the eccentricities of a man of genius, say that all his annoyances vanished before the marvelously affecting pathos with which this odd visitor spoke the single word, "good-night." We all remember the story of our philanthropic country-woman quieting the rage of a maniac by her tones. Elizabeth Fry used to do

the same thing at Newgate. What we only need to remember is, that into these unpremeditated sounds goes the moral coloring of a character compacted in the deliberate formation of years. And if we would breathe magnanimity, we must be, we must have been, magnanimous.

Still another of the silent but formative agencies in education is that combination of physical signs and motions which we designate in the aggregate as manners. Some one has said: "A beautiful form is better than a beautiful face; but a beautiful behavior is better than a beautiful form. It is the finest of the fine arts. It abolishes all considerations of magnitude, and equals the majesty of the world." A treatise that should philosophically exhibit the relative proportion of text-books and mere manners, in their effects on the whole being of a pupil, would probably offer matter for surprise and for use. It was said that an experienced observer could tell, in Parliament, of a morning, which way the ministerial wind blew, by noticing how Sir Robert Peel threw open the collar of his coat. Manners are a compound of form and spirit—spirit acted into form. The reason that the manner is so often spiritless and unmeaning is, that the person does not contain soul enough to inform and carry off the body. There is a struggle between the liberty of the heart and the resistance of the machine, resulting in awkwardness whenever the latter gets the advantage. The reason a person's manner is formal is, that his sluggish imitation of what he has seen, or else a false and selfish ambition, comes in between his nature and his action, to disturb the harmony and overbear a real grace with a vicious ornament. The young, quite as readily as the old, detect a sensible and kind and high-hearted nature, or its opposite, through this visible system of characters, but they draw their conclusion without knowing any such process, as unconsciously as the manner itself is worn. The effect takes place both on the intellectual faculties and the affections; for very fine manners are able to quicken and sharpen the play of thought, making conversation more brilliant because the conceptions are livelier. D'Aguesseau says of Fenelon, that the charm of his manner, and a certain indescribable expression, made his hearers fancy that instead of mastering the sciences he discoursed upon, he had invented them.

Manners also react upon the mind that produces them, just as they themselves are reacted upon by the dress in which they appear. It used to be a saying among the old-school gentlemen and ladies, that a courtly bow could not be made without a handsome stocking and slipper. Then there is a connection more sacred still between the manners and the affections. They act magically on the springs of feeling. They teach us love and hate, indifference and zeal. They are the ever-present sculpture-gallery. The spinal cord is a telegraphic wire with a hundred ends. But whoever imagines legitimate manners can be taken up and laid aside, put on and off, for the moment, has missed their deepest law. Doubtless there are artificial manners, but only in artificial persons. A French dancing-master, a Monsieur Turveydrop, can manufacture a deportment for you, and you can wear it, but not till your mind has condescended to the Turveydrop level, and then the deportment

only faithfully indicates the character again. A noble and attractive everyday bearing comes of goodness, of sincerity, of refinement. And these are bred in years, not moments. The principle that rules your life is the sure posture-master. Sir Philip Sydney was the pattern to all England of a perfect gentleman, but then he was the hero that, on the field of Zutphen, pushed away the cup of cold water from his own fevered and parching lips, and held it out to the dying soldier at his side! If lofty sentiments habitually make their home in the heart, they will beget, not perhaps a factitious and finical drawing-room etiquette, but the breeding of a genuine and more royal gentility, to which no simple, no young heart will refuse its homage. Children are not educated till they catch the charm that makes a gentleman or lady. A coarse and slovenly teacher, a vulgar and boorish presence, munching apples or chestnuts at recitations like a squirrel, pocketing his hands like a mummy, projecting his heels nearer the firmament than his skull, like a circus clown, and dispensing American saliva like a Member of Congress, inflicts a wrong on the school-room for which no scientific attainments are an offset. An educator that despises the resources hid in his personal carriage, deserves, on the principle of Swedenborg's retributions, *similia similibus*, or "like deserves like," to be passed through a pandemonium of Congressional bullying.

I have thus specified some of the palpable channels through which the stream of this unconscious influence flows. After all, however, there is a total impression going out from character, through the entire person, which we cannot wholly comprehend under any terms, nor grasp in any analysis. We now and then meet a person who, we can not tell how, by the mere magnetism of his being, kindles our enthusiasm and liberates our faculties. History tells of persons whose presence, by virtue of a secret pureness of essence, was aromatic to the senses. I have been told by a Chippéwa Indian, that the men of his own tribe and those of the Sioux, between whom there has been a deadly feud for generations, although their forms and features and dress are not at all distinguishable, yet recognize one another for enemies at the greatest distance, selecting foe from friend with the infallible precision of a savage instinct. "Each faculty," it is written, "and each fixed opinion, spaces the body to suit its own play; whence sects and parties wear their bodies for liveries, and are dry or juicy, liberal or stinted, sensual or spirited, according to the openness that their tenets put into their lungs, and their lungs into their livers and frames."

A very competent critic, Mrs. Jameson, speaks thus of the "Life and Letters of Dr. Arnold," the great educational chief of modern times: "I never read a book of the kind with a more harmonious sense of pleasure and approbation. Page after page, the mind which was unfolded before me seemed to be a brother's mind—the spirit, a kindred spirit. It was the improved, the elevated, the enlarged, the enriched, the every way superior reflection of my own intelligence, but it was certainly that. I felt it so from beginning to end. Exactly the reverse was the feeling with which I laid down the 'Life and

Letters of Southey.' I was instructed, amused, interested; I profited and admired, but with the *man* Southey I had no sympathies; my mind stood off from his; the poetic intellect attracted, the material of the character repelled me. I liked the embroidery, but the texture was repugnant." And that impression is as much more practical and efficient in the school-room than elsewhere, by as much as the place is more circumscribed and simple, more subject to unity and system, the insight of the observers more unsophisticated and their age more plastic. It is the impression which is the moral resultant of all that the teacher has grown up to be—the perpetually overflowing animus or spirit, of the sum total of his manhood, weak or strong, sound or corrupt, candid or crafty, generous or mean, sterling or counterfeit, heathen or Christian.

Nor need it cast any suspicion on this doctrine that it implies a power acting which we can not shut up into definitions; certainly not as long as we are born out of one indefinable mystery and die into another. It is a property of man, no less than of even material things, that he carries along with him more than can be measured by his literal dimensions. Why, there is not a flower in all God's gardens but suggests more meaning to the heart than Linnaeus himself could extract from its calyx by botanic manipulations. The graceful outline of mountains, the splendor of planets, the shimmer that hangs over the curved sea in a summer noon, the awfulness of midnight, are far more to us than any philosophic data can describe. The commonest objects take on attributes and exert a power not at all accounted for by their matter or visible uses. The house where I was born says something to me, and I thank Him who dwells in a house not made with hands, inhabiting eternity, for it—something which can not be interpreted by the wood, and iron, and mortar, and clay that compose the structure, nor yet by the proportions into which architecture has fashioned them. Its language is eloquent with the immaterial voice, "the unwritten poetry," and the fleeting images that cluster about those lyric names, Childhood and Home.

The Bible that your mother gave you borrows its beauty from no book-maker's art; and before you open its leaves to read it has sent in a mystic message upon your soul. There are household hymns, divine parables, inspired prophecies, half whose value consists not in what they literally or purposely disclose, but in what they intimate by association. Shall we hesitate to ascribe a richer measure of the same kind of influence to him who is animated by a living spirit, and to own a virtue going out from him, the unconscious revelation of his acquired and inward character?

There is one kind of education, too, which has never yet perhaps had exact justice done it under any system, which must be carried forward by this indirect and pictorial method. I mean the imagination; that genial, benignant, Divinely-given faculty. By express tuition you can do almost nothing for it, and what you do you will be likely to do wrong. But unconscious forces within you will stimulate it. And how richly it rewards such nurture! I doubt whether there is any department of even material prosperity that does

not stand somehow indebted either for impulse, or courage, or adorning, to the imagination, and whether there is any kind of work that reaches its highest perfection without some of its wonders and pictures. Not a mechanic's bench, nor farmer's home, but imagination has touched it, transfigured it, blessed it with her wand.

Stillingfleet, I know, calls the imagination "a shop of shadows," but it has brightened more shops than it has shaded; and Stillingfleet is not the only preacher that has reviled the source of much of his own power. Imagination acts through association, through form and motion, through glances, through what is most human in our humanity. It is the aureola of common life and the morning light of hope. How many burdens it has eased, how many threatening calamities it disarms, how many clouds it tips with gold, how much homely drudgery it clothes in garments of splendor! Hunt's lines are true as beautiful, in their condensed significance, and suit my purpose as exactly as if they were written for it:

"Fancy's the wealth of wealth, the toiler's hope,
The poor man's piecer-out, the art of nature,
Painting her landscapes twice; the *spirit* of fact
As matter is the body; the pure gift
Of Heaven to poet and to child; which he
Who retains most in manhood, being a man
In all things fitting else, is most a man,
Because he wants no human faculty,
Nor loses one sweet taste of the sweet world."

Then I think of the dull, stupid scholars in every school; the poor brains that text-books torment; the sad, pitiable dunderheads, with capacity enough for action perhaps by-and-by, but dismally puzzled for the present by these mysteries of geography and fractions. What a jubilee to them is the day they find an animated and vital teacher, who teaches by all the looks, and motions, and heart-beats, and spirit of him, as well as by those dreary problems and ghastly pages. There is no grade of intellect that this highest learning of the soul does not reach, and so it is a kind of impartial gospel, uplifting glad tidings to encourage despair itself.

It helps, negatively, to the same conclusion, that no moral influence that is put forth, as by deliberate contrivance to put it forth, avails much. It seems as if to go about in cool blood to undertake an influence—to get it up and spend it, forfeited the privilege, like getting up sympathy by a conspiracy, or falling in love with a prospectus. Who ever heard of a man becoming influential by saying: "Go to, now, I propose to be influential?" Something about this great sympathetic force requires that it should be, in a sense, indirect and unconscious, in order that it be valid. There is a providential necessity that it be got by preliminary accretions of merit, and be distributed because it can not be helped, or rather distribute itself. We all hate, with a wholesome sort of disgust, the canting formalist, who approaches us with the unctuous advertisement that he intends to operate on us with sanctifying

manners, like the pattern young man who offered, in the newspaper, to go into a family where his influence would pay his board. Nobody discerns this assumption of character sooner than boys and girls. Matters of mere technical information may be legitimately conveyed by almost any tongue, but to exercise the power of character, a character must have been earned. The title must have been won by a heroic tone, habitually high. And then its influence, molding these pliant young natures around you, will be as sure as it is silent. Nothing can keep it back. Character is a grand creation in itself. But its grandeur never remains an abstraction. In moral life, influence is the complement of being.

II. It is time, then, to pronounce more distinctly a fixed connection between a teacher's unconscious tuition and the foregoing discipline of his life. What he is to impart, at least by this delicate and sacred medium, he must be. "No admittance for shams" is stamped on that sanctuary's door. Nothing can come out that has not gone in. The measure of real influence is the measure of genuine personal substance. How much patient toil in obscurity, so much triumph in an emergency. The moral balance never lets us overdraw. If we expect our drafts to be honored in a crisis, there must have been the deposits of a punctual life. To-day's simplest dealing with a raw or refractory pupil takes its insensible coloring from the moral climate you have all along been breathing. Celestial opportunities avail us nothing unless we have ourselves been educated up to their level. If an angel come to converse with us on the mountain top he must find our tent already pitched in that upper air. Each day recites a lesson, for which all preceding days were a preparation. Our real rank is determined, not by lucky answers or some brilliant impromptu, but by the uniform diligence. For the exhibition-days of Providence there is no preconcerted colloquy—no hasty retrieving of a wasted term by a stealthy study on the eve of the examination. Bonnivard, Huss, Wycliffe, Alfred, Cromwell, Washington, Madame Roland, Sir John Franklin, these valiant souls were not inoculated for their apostleship *extempore*. The roots of all their towering greatness, so brave to the top, ran back under the soil of years.

I have seen a sudden thundergust smite an elm on one of our river-meadows, tossing its branches, twisting its trunk, prying at its root till it writhed, as if wrestling with an invisible Titan, and tearing off a few light leaves to whirl in airy eddies, but yet struggling in vain to unsettle the firm and elastic lord of the green valley from its place. Did the earth give her graceful and kingly child, as the cloud came up, any special props or braces, any thicker bark, or longer root to breast the shock? All these had to be provided in the persevering nurture of spring suns and winter blasts, sap-giving summer nights and dripping autumn rains, when no eye could mark the gradual growth. The tempest did not create the vigor which it tried and proved, and left erect as ever.

Test these general positions in their practical bearing on your employments, as before, by a familiar example. It is in the experience of most

teachers, I presume, that on certain days, from first to last, as if through some subtle and untraceable malignity in the air, the school-room seems to have fallen under the control of a secret fiend of disorder. There is nothing apparent to account for this epidemic perversity. All the ordinary rules of the place are in full recognition. The exercises tramp on in the accustomed succession. The parties are arranged as usual. There are the pupils, coming from their several breakfasts, bringing both their identity and their individuality; no apostasy nor special accession of depravity, over night, has revolutionized their natures; no conspiracy out of doors has banded them into a league of rebellion. Yet the demoniacal possession of irritability has somehow crept into the room and taken unconditional lease of the premises. You would think it was there before the first visible arrival. The ordinary laws of unity have been suddenly bewitched. The whole school is one organized obstruction. The scholars are half-unconscious incarnations of disintegration and contra-position—inverted divisors engaged in universal self-multiplication!

How is such a state of things to be met? Not, I think, you will agree, by direct issue; not *point blanc*. You may tighten your discipline, but that will not bind the volatile essence of confusion. You may ply the usual energies of your administration, but the resistance is abnormal. You may flog, but every blow uncovers the needle-points of fresh stings. You may protest and supplicate, scold and argue, inveigh and insist, the demon is not exorcised, nor even hit, but is only distributed through fifty fretting and fidgeting forms. You will encounter the mischief successfully when you encounter it indirectly. What is wanted is not a stricter sovereignty, but a new spirit. The enemy is not to be confronted, but diverted. That audible rustle through the room comes of a moral snarl, and no harder study, no closer physical confinement, no intellectual dexterity will disentangle it. Half your purpose is defeated if the scholars even find out that you are worried. The angel of peace must descend so softly that his coming shall not be known, save as the benediction of his presence spreads order, like a smile of light, through the place. If a sudden skillful change of the ordinary arrangements and exercises of the day takes the scholars, as it were, off their feet; if an unexpected narrative, or fresh lecture on an unfamiliar theme, kept ready for such an emergency, is sprung upon their good-will; if a sudden resolving of the whole body into a volunteer corps of huntsmen, on the search of some etymological research, the genealogy of a custom, or the pedigree of an epithet surprises them into involuntary interest; or, in a younger company, if music is made the Orphean minister of taming savage dispositions again, then your oblique and unconscious tuition has wrought the very charm that was wanted; the room is ventilated of its restless contagion, and the furies are fled.

Or if, as is more than probable, the disorder was in the teacher himself; if the petulance of the school all took its origin in the disobedience of some morbid mood in the master's own mind or body, and only ran over, by sympathetic transmission, upon the benches, so that he saw it first in its reflec-

tion there, of what use to assail the insubordination by a second charge out of the same temper? His only remedy is to fall back on the settled spiritual laws of his being. He must try to escape out of the special disturbance into the general harmony. He must retreat, in this emergency of temptation, into those resources of character, principle, affection, provided by the previous and normal discipline of his soul. This he will achieve by some such process as that just now specified, displacing the ground of a direct and annoying conflict by new scenery, and, rather leaping up out of the battle, with foes so mean, than staying to fight it out on their level.

On the other hand, you sometimes find yourself taken up into those lofty moods where you feel gifted with an unwonted competency. You are equal to all encounters then. Your spiritual atmosphere is bracing and elastic. Every opportunity offers itself, like an instrument, right end first. The school, the study, the workshop seems to have been waiting for you to arrive. Every yesterday was like the Jewish preparation-day for a Sabbath. All things are possible. The school-room that day, and all the planet, is under your feet. The recitations take the pitch of your own will; your sentences of explanation come out round and clear, like golden drops. Your steps are the march of a conqueror. Impediments are annihilated. Order is spontaneous. These elevated and depressed moods serve as high and low water-marks to show the sweep of the tidal vibration. But neither the one nor the other is produced by a direct volition. They come by indirection. The springs that produce the ebb and flow lie back of all proximate causes, among the more comprehensive laws of character. And when your state is most free and effective, you feel that the best effect, after all, is not so much exerted by intention as by some involuntary spirit of felicity possessing you. Your success is due, not to specific undertakings at the moment so much as to an unconscious influence, acting through your person as its organ, a motive to itself. The same thing is revealed to us, if we fix our attention on that common word, good-nature. Good-nature is one of a school-teacher's benignant forces. And it is a force at once unconsciously exerted, and slowly acquired or kept; a reservoir, and not a spout, nor an April shower.

Something analogous takes place in the purely intellectual part of our nature. And this is best illustrated by those acts of the mind which are creative or inventive. A subject that you labor painfully to unfold at one time, at another time unfolds itself. That happens, I dare say, to you, which is common enough with writers of sermons; after special elaborate efforts to exhaust a topic, or to set distinctly forward its central idea, he may be apprised that he has only preached *about* the thought, but has not preached *it*; while, in some subsequent performance, when he was not trying, he struck the mark exactly in the eye. The thing he spent a whole discourse in trying to say without getting it said, after all, says itself in a dozen natural words. Of course, the internal relations of truth with itself have not changed, but he has changed, and has become a more simple medium, or voice, for truth to speak by.

The question is a practical question: Are these occurrences the anomalies they appear, or are they subject to a secret law? Was the final and unexpected elucidation of the theme in no way indebted to the previous exercise? Or, was the clarified mental faculty, when the nebulous conception came out into strong, sharp light, the result of no foregoing discipline, or immediate and determinable cause, affecting the health of the brain? Is it certain that the "dark days" at school are totally inexplicable phenomena, and inevitable? Or can those other days of liberty and joy never be created at will?

It is my belief that these instances I have cited are simply extreme examples of a force which runs through all our life, the force of a funded but unreckoned influence, accumulated unconsciously, and spending itself through unconscious developments; in other words, that these special moods, whether dense or rare, which appear to come and go without our control and without law, are yet the result of causes pertaining to the regular growth of character. I believe that whenever psychology and physiology shall come to be as exactly understood as the mathematical relations of astronomy, one of these freaks of temperament may come to be as confidently predicted as an eclipse of the sun. It is an outbreak, under prepared conditions, of a moral quality inbred by foregoing habits, however mixed and obscure. In short, there is a spirit of the school-room, not to be waited for, like a miraculous Pentecost, but to be earned, and gained, and unfolded, like every great spiritual treasure in our life, under the steady grace of God.

III. My third and final point is, that, as the unconscious tuition emanates from the inmost spirit of the teacher's life, not by accident nor lawless caprice, but in real accordance with the antecedent growth and quality of his character, so it is the most decisive energy molding the interior life of the scholar. The whole divine economy, as respects our constitution, renders it impossible to detach the power of a man's speech from the style of his personal manhood. A handsome but heartless speaker never yet stole the secret of a sincere conviction. He may gain an unlimited admiration, but he is abridged of permanent strength. The climate of abstract and unembodied thought is a polar zone. If there is a moral ingredient in the business of education at all, then, as with all other institutions that affect society, the question is paramount, What is the quality, temper, life of the speaking man? When an aspirant for public office, of a vicious substance or no substance at all, is defeated in his ravenous and lying ambition, however correct his political opinions, there is a divine justice in his disappointment. And we are well persuaded, if we are good citizens, that when chicane and falsehood gain a temporary promotion, the Nemesis that can afford to wait is not outwitted. The world's ardent and lasting enthusiasms centre in some great personal object. How it would mock every admiring and reverential sentiment we cherish toward the august and endeared memory of the Father of his Country, if we were told to expunge from our minds all notion of what Washington was as a man, erase that lofty figure from the early scenery of the nation's history, sink his personal characteristics, and think only of the written words pre-

served to us in Mr. Sparks' collection of his correspondence and political documents! Personal relations, friendships, sympathies, clasped hands, answering eyes, touch, symphonious heart-beats, constitute the chief charm and privilege and joy of existence. We can easily conceive of all the bare *materiel* of instruction being conveyed into a school-room through a mechanism of pipes in the wall, or maps let down by pulleys, and its discipline administered by a veiled executioner, no heart-relations being suffered to grow up between teacher and taught. Into what sort of a bleak degradation would a generation be reduced by such a machinery? Yet every teacher approaches to that metallic and unilluminated regimen who lets his office degenerate into a routine; who plods through his daily task-work like the tread-wheel wood-sawing horse in the railway-station shed, with no more freshness of spirit than the beast, and no more aspiration than the circular saw he drives; who succumbs to the deadening repetition, and is a virtual slave, yoked under bondage to the outside custom of his work. All sorts of human service are more or less exposed to be paralyzed by this torpor of routine; but no intellectual profession stands in more peril of coming under the blight of it than that of the teacher, partly for the reason that the same lessons recur, and partly because of the distance of attainment separating the preceptor from the pupil. There are some lawyers who plead like parrots; some doctors who give medicine as mechanically as a trip-hammer smites iron; some preachers who preach only from the throat outward, fetching up no deep breaths from the region of the heart; some manufacturers whose mental motions are as humdrum as their own shuttles, and engineers as automatic as the valves and levers of their engines. It is a greater mischief than we think, and strikes a deeper damage into the world's honor. Going through the whole lesson of life in the homeliest prose, from spade to sermon, from kitchen to church, from making loaves to making love, from marketing to marriage, such people dwarf down the whole wondrous majesty and mystery of our being to a contemptible carving-mill, turning out so many blocks or blockheads from so much timber. But the wrong done by it is never more disastrous than when it falls on the buoyant, the impressible, the affectionate, and aspiring soul of childhood. Let every beginner, on the threshold of his vocation, earnestly pray and strive to be saved from the doom of a routine teacher!

The world is full of proofs of the power of personal attributes. In most situations—in none more than a school—what a man is tells for vastly more than what he says. Nay, he may say nothing, and there shall be an indescribable inspiration in his simple presence. Every person represents something, stands for something. At least he represents a value antecedently created in his own character. As was said of Bias, the wise Greek: Himself is the treasure that a whole life has gathered. He stands for the wealth of being that a thousand past struggles have contributed to form. It is a Romish legend that Christ and the Virgin have appeared to certain saints and impressed sensible and indelible works on their persons. Such signs of heavenly favor are certainly stamped on the great and good whom we revere, by

their secret conflicts, ended in victories. Unobserved, unuttered, unconscious, is the preparation of that power. Eight solitary and suffering years the great modern apostle of Christian missions toiled at his post before a single convert confessed the faith; did he dream of the mighty influence those obscure and patient years were building up, to react on the faith and inspire the zeal of all believing souls, thus re-Christianizing Christendom? So his wise and calm biographer—if I may be pardoned this reference to a living educator whose wisdom you have all seen and felt as well as heard—has often seemed to me a striking illustration of the strength that lives in simple character, apart from, beyond and above all the literal contents of all speech and all actions. And when we ascend from human personages to the Divine, and behold the Lord of all souls, just before His crucifixion, bending to wash His disciples' feet, we have, in that visible posture of condescension, a symbolizing of the whole humility of His religion—an incarnation of His redeeming office, which, like the cross itself, no language can translate. Seneca advised one of his friends to represent to himself Cato, or Socrates, or some other sage, as a constant observer—as a formative power. Alexander's statue had no such stimulus to inflame Cæsar as the schoolmistress of a dozen pupils has to raise ennobling resolves in their susceptible blood.

There is a touching plea in the loyal ardor with which the young are ready to look to their guides. In all men, and in women more than in men, and in children most of all, there is this natural instinct and passion for impersonating all ideal excellence in some superior being, and for living in intense devotion to a heroic presence. It is the privilege of every teacher to occupy that place, to ascend that lawful throne of homage and of love, if he will. If his pupils love him, he stands their ideal of an heroic nature. Their romantic fancy invests him with unreal graces. Long after his lessons are forgotten, he remains, in memory, a teaching power. It is his own forfeit if, by a sluggish, spiritless brain, mean manners, or a small and selfish heart, he alienates that confidence and disappoints that generous hope.

I would say to all teachers—if I may here express my sense of the unity of their office, in its true interpretation, with my own as a minister in the Church—we have been touching here the most sacred issues of our common duty. It is felt, I believe, more and more every day, by all instructors who do not insult and profane their high calling by mere frivolous or mercenary dispositions, that the saddest perplexity they have to meet is the right moral management of their charge. Would to God we might help one another in that profoundest study! On your intellectual harvest, notwithstanding the inequalities of gifts, you can rely with a comparative assurance, in return for your fidelity. But when you approach the child's conscience and spirit, you confess the fearful uncertainties that invest that mysterious and immortal nature. Need it be always so? Have we no promises from God? Is there no covenant for our children to comfort us? Is not temptation itself subject to spiritual laws, which we may hope more and more to comprehend as we descend into deeper and deeper fellowship with Him who hath put all things under his feet?

Of this at least we may be sure. The fixed and everlasting principles of character can not be put aside, nor bribed, nor held in suspense, either to accommodate our moral indolence or to atone for our neglects. What we are daily sowing in self-discipline we shall reap in the failure or success of our work. What is in us will out, spite of all tricks or masks. Genuine souls tell, and no hypocrisy can mock or circumvent them. If we mean to train disciples of a Christian virtue, we must march the whole road our selves. If we would mold the living sculpture, we must first fashion our implements out of purity, simplicity, love, and trust. We are watched, we are studied, we are searched through and through by those we undertake to lead—not in a jealous or malignant criticism, but in earnest good faith. A manhood that is manly, a womanhood that is womanly—these are not such ugly sights that young hearts should turn away from them or disown their fascination. Like produces like. Candor, magnanimity, veracity, tenderness, worship—these are no juvenile graces meant to be set on children's breasts by grown-up teachers on whose own lives their glory never gleams. Not the most unflagging persistence, not the pains-taking that wears out sinews and nerves, that wearies hope itself; not the sharpest correction or the kindest counsel; not the most eloquent exhortations to the erring and disobedient, though they be in the tongues of men or of angels, can move mightily on your scholars' resolutions, till the nameless, unconscious, but infallible presence of a consecrated heart lifts its holy light into your eyes, hal- lows your temper, and breathes its pleading benediction into your tones, and authenticates your bearing with its open seal. This, my brothers and sisters, is our necessity. And because it is Heaven's command, it is our sufficient encouragement.

No system of education is complete till it concerns itself for the entire body, and all the parts of human life—a character high, erect, broad-shouldered, symmetrical, swift; not the mind, as I said, but the man. Our familiar phrase, "whole-souled," expresses the aim of learning as well as any. You want to rear men fit and ready for all spots and crises, prompt and busy in affairs, gentle among little children, self-reliant in danger, genial in company, sharp in a jury-box, tenacious at a town meeting, unseducible in a crowd, tender at a sick-bed, not likely to jump into the first boat at a shipwreck, affectionate and respectable at home, obliging in a traveling party, shrewd and just in the market, reverent and punctual at the church, not going about, as Robert Hall said, "with an air of perpetual apology for an unpardonable presumption of being in the world," nor yet forever supplicating the world's special consideration, brave in action, patient in suffering, believing and cheerful everywhere, fervent in spirit, serving the Lord. This is the manhood that our age and country are asking of its educators—well-built and vital, manifold and harmonious, full of wisdom, full of energy, full of faith.

The researches of vegetable chemistry tell us that flowers borrow their colors, by hidden affinities, out of the separate soils they grow on, though the earthy bed gives no prophetic pledge to the eye of the beauty that will

bloom from it. A dull, sober, quakerish clay shoots up "the splendid hues of the hypoxis," and the lupine spreads its soft azure petals over the sharp yellow sand. The fringed gentian,

"Blue, blue as if the sky let fall
A flower from its cerulean wall,"

smiles over the blackest mud. There are plants that suck luxuriant verdure from the arid breast of rocks. Others, on margins of the ocean, distill sweetness through roots soaked always in bitter brine; and others seem to breathe in their only nutriment from the air, turning the impalpable ether, by their marvelous alchemy, into snow-white berries or evergreen boughs. But into that more wonderful human stock, of whose nurture I speak, there enter, by influences as concealed, as mysterious, yet as conformable to the divine regularity of the causes in God's economy, not only the blended contributions of all elements in earth, and sea, and air, but the spiritual forces of a living Guide. And so the educated man is meant to be, not a subject of philosophic climates or geographic sections, but the incarnation of an illimitable humanity, with all the universe in his leaping pulses, with life eternal in the organs of his liberal and believing soul.

Teachers are the directors, under Christ, the masters of this immortal rearing. The Prussians have a wisemaxim, that whatever you would have appear in a nation's life you must put into its schools. Entering into the dignity of so grand an enterprise, teachers are the ministers of every high institution in our social state. They are friends and benefactors of the family. They are builders and strengtheners of the Republic, perpetually reinaugurating the Government. They are apostles for the Church. They are fellow-helpers to the truth of Him who is Father of all families, King over all empires, Head of the Church. If I heartily congratulate them on such possibilities and opportunities of honor, will it be deemed a presumption that I have urged them to be disinterested in that friendship, wise master-builders, faithful apostles?

The condition and welfare of the evening schools require special attention. Many claim admittance who have no desire to acquire the rudiments of a common education; they are noisy, unruly, rude, and often quite mischievous. All such who at that age still require the strong hand of a governing power should be excluded.

The destruction of school property during a year is quite considerable, and a serious matter for the community. School houses are broken into, and furniture and supplies are wantonly destroyed or carried off. This evil might be checked by employing as janitors for the larger buildings able and watchful

men, who should be held responsible for the safety of the building and its contents. Every one should be made a special police officer, and render as such important services to the Department.

The location and condition of the office of the Board of Education and the Superintendent are anything but satisfactory. Hundreds of employees of the Department must daily pass through an entrance used by all who voluntarily or involuntarily appear before the Police Court or Commissioners of Insanity. The rooms of the Department are not adequately and suitably furnished; the whole arrangement is unworthy of the great metropolis of the Western Coast.

To enable the Board of Education to keep pace with the increase of our school-attending population, a special school building fund should be provided for by the next Legislature. Without such a provision, teachers may be compelled from time to time to sell their warrants at a discount, or growing districts of this city must do without suitable school accommodations.

I regret deeply that the Honorable Board of Education has not seen fit, in its wisdom, to adopt all the recommendations made by the Committee on Cosmopolitan Schools, and to carry into effect the provisions of the Political Code concerning teachers of beginners in the Primary Department.

In conclusion, I desire to express my thanks and gratitude to the members of the Honorable Board of Education, and to the Deputy, Mr. D. C. Stone, for their hearty coöperation in the discharge of my public duties.

Respectfully submitted:

HENRY N. BOLANDER,
Superintendent of Common Schools.

REPORT OF THE DEPUTY SUPERINTENDENT.

To HENRY N. BOLANDER, Esq., *Superintendent of Public Schools*:

SIR—I beg leave herewith to present my report of the educational condition of the Public Schools of this city for the school year ending June 30th, 1877, together with such suggestions as have occurred to me.

Upon the whole, the schools have been, during the past year, unusually prosperous. The attendance has been good, in many schools very uniformly so, during the entire year, and the average advancement of the pupils as satisfactory as could be expected. I have taken especial pains to notice, in visiting the schools, both the character of the instruction given and the method of discipline pursued, and I am glad to say, that, in the great majority of instances, I have observed very creditable work in the way of teaching, and a quiet, sensible and firm control of pupils. Our teachers, as a body, are anxious to do their duty well, and if the results of their labors seem in many cases to be imperfect and to fall far short of what might have been expected, the reasons therefor may be sought in causes beyond their control. With a perfect course of study, with thorough supervision of classes, and with such co-operation on the part of parents as should guarantee prompt and regular attendance of scholars—circumstances which are beyond the line of the teacher's work—the efficiency of our schools would be vastly increased.

COURSE OF STUDY.

In a meeting of the Kansas State Grange, held some months ago at Topeka, a committee, who had been appointed a year previously to consider "a course of education adapted to the wants of Common Schools," made a report, which embodies so much common sense and which states so clearly the objection to the ordinary course of studies pursued in Public Schools, that I beg leave to present a portion of it in this place. It will be seen, by a glance at the concluding paragraphs, that the importance of Oral Instruction, so called, is fully appreciated, and that a knowledge of the world about us in all its varied forms of beauty and utility is considered of far greater practical interest to the children who are being trained for active life than the dry bones of dead and impractical book knowledge, which constitutes so large a part of the ordinary curriculum:

"The report looks towards a change in the ordinary course of study pursued in the schools mainly in two directions—first, to make it in a general

way more practical; and, second, to introduce into it some branches specially relating to the industries of the country.

“The committee think their inquiries justify them in concluding that the educational work now done in the Public Schools is, first, superficial in its character; second, defective in its method; and, third, narrow in its scope. They quote a great many authorities in all parts of the country upon which they base their opinion.

“The report specifies the branches in which it is thought reform is most needed. We quote the ‘recapitulation’ on this subject.

“‘In arithmetic it is proposed to abandon the memorizing of those numerous definitions, rules, and principles, so called, which are valueless in the applications of numbers; and are never thought of in such applications. Instead of such memorizing, *practice* is to be substituted—practice so thorough that high attainments shall be made as regards rapidity and accuracy in all the computations entering into ordinary affairs of business—practice, till habit shall obviate all necessity for rule.

“‘Beyond those simple operations which enter into the keeping of common accounts, the computations in interest, the making of ordinary estimates, etc., all else shall be left to professionals in numbers.

“‘In geography, it is proposed to have our children taught to map their own school district, their township, county, State and country; enough of this to fix in their minds clearly defined descriptions of such local geographical divisions, so as to bring intelligence to their newspaper and other reading, an enlightened sense of the situation of localities in which current events of their own country occur. Besides thus much of local geography, just enough of the mapping and study of foreign countries as to enable the pupil to refer to his maps to find the localities of all important events, the subjects of reading and conversations, and generally such a handling of the subject as to habituate the pupil to the use of a book of maps, which he should be taught that he must take with him from school as a life companion.

“‘In English grammar it is proposed to abandon the whole memorizing and analytical business, and, by actual practice and training in correct speaking and writing, to habituate pupils in the expression of their thoughts in the English language, according to good usage.

“‘Children learn to speak the English language from their mothers. Intelligent mothers teach their children to speak correctly, by pointing out right usage and pruning out vulgarisms. Transferred to the school-room the teacher should, and in the new education will, aid such instruction in the same manner and carry language study forward by pointing out whatever of grammatical rule comes within the comprehension of the pupil, and is applicable to the practice exercises of the school-room, and to the correction of all errors in language heard or written in or about the school-room. Thus those children who do not acquire correct speech at home will fall in with the current of correct speaking at school, and all will receive alike that culture in speech which alone comes from association with those whose aim is, in lan-

guage as in all things else, to imitate and conform to the usage of good society.

“‘The practice of writing should enter largely into the school work—in the study of orthography, reading, geography, arithmetic—as a means of engaging attention, and of inducing actual and systematic industry in the preparing of lessons, and at the same time of bringing pupils into a ready skill in the use of the pen and pencil, and in the execution of varied forms of written composition. Writing should continue to be practiced among advanced pupils till an ability shall be acquired to write letters of friendship and business, correctly and neatly, and to execute with readiness and propriety all forms of written composition which enter into the discharge of the ordinary duties of life and of citizenship. This and this alone is the character of instruction in English grammar suited to Common School education.’

“In place of the parts of geography, grammar, arithmetic, etc., omitted from the proposed course, these Western Grangers would introduce the elements of the natural sciences. They say:

“‘Under such instruction, farmers’ children will be taught something concerning the nature and composition of the soil which they are to till, and of its adaptation to the growing of this food-plant or that. They will be taught something of the formation of the rocks with which they build, and of the great system of rocks with which God has constructed the basis upon which the soil rests; systems, too, which, through the disintegration, pulverization and comminutions brought about by the various changes which the forces of nature have wrought upon their substance, have contributed to, and in a great measure make up, the composition of the soil itself. The farmers’ children will have unfolded to them the subtle laws by which the plants they are to cultivate draw their sustenance from the mineral kingdom, and create the food upon which man and animals live. They will be taught, and led to love to investigate nature’s works around them. God Himself has implanted a love of investigation in the natural mind. It is because their teachers, and we, their parents, are ignorant of the way to direct their youthful searchings after nature’s teachings that our children do not grow up in continued research, and become very masters of the sciences connected with agriculture, the materials for the study of which are everywhere spread out before them from their earliest existence.’

“The committee recommend:

“‘That instruction be required of the most thorough character in those portions of the old studies useful and necessary to all classes. It is recommended that portions of the old studies which have come into the schools under the plea of mental discipline, and which could never have had any higher claim for consideration than that they are disciplinary, should be discarded, and, in lieu thereof, that there shall be employed studies calculated to impart knowledge respecting those things which enter into the common affairs of life—into the business and the pleasures of life; studies which explain the objects by which we are surrounded, which explain the laws of plant and animal

life and growth, which explain the insects and the flowers, the rocks and the soils, the birds and the fishes, the water and the air, the clouds and the sunlight, the stars and, I might almost say, which explain the great Creator Himself, who made all these things for man's use, for his study, contemplation and enjoyment. In place of the dry and soulless discipline of old abstractions, it is proposed to supply the study of those things which awaken thought, inspire a love of nature, and lead the minds of our children up to a contemplation of the greatness and wisdom and goodness of creative power.' "

It will be seen that in the opinion of this committee the way to learn how to do anything is to do it, and keep doing it under intelligent direction until a fair degree of perfection is attained. As, in the opinion of Demosthenes, the secret of oratory was "*action, action, action,*" so the secret of proficiency in the use of our mother tongue and in the command of numbers is *practice, practice, practice.*

The subdivided course of study, which has been in use during the past year, has worked well and given general satisfaction. A few changes are contemplated, which will still further increase its efficiency. In Physics and Physiology I have prepared a brief manual to accompany the text-books, indicating the topics which are to receive special attention, and also portions of the book which may be omitted. A similar set of notes is now ready to accompany the two Geographies in use, specifying what must be learned and what omitted. It is hoped that the work of the teachers in these branches will be thus simplified and made more effective. It is my intention also to prepare a tract on Arithmetic during the coming quarter, which shall contain a large number of examples adapted to the grade above the sixth, abundantly illustrating the work of those grades.

ORAL INSTRUCTION.

I have referred above to the branch of study designated in our course as Oral Instruction. We have many teachers in the department who understand thoroughly the object and scope of oral instruction; who are prepared by their reading and observation deeply to interest their scholars in their simple conversations regarding common objects around them, making the short portion of time assigned to this exercise a true recreation and rest, both to themselves and their pupils, as well as a means of imparting useful knowledge. Unfortunately, however, in too many instances this branch of school work has come to be a delusion and a snare, a burden to teachers and to scholars. So far from being *oral* it has come to be almost entirely a written exercise. The pupil is obliged to copy in a blank book lists of adjectives, which are written on the blackboard, and to commit them to memory at home to be repeated to the teacher the succeeding day. It would be preferable to have the whole subject banished from the school curriculum, rather than continue this burdensome and unwise method. There is nothing in the art of instruction

which demands more careful preparation, more thought and observation, than this "object teaching," as it has generally been called. Wherever possible it should be accompanied with the objects to be described, and the teacher should be so thoroughly familiar with these that every question the pupil may ask, and questions should be encouraged, can be correctly answered.

PROMOTIONS.

I am compelled to refer to an element of weakness in our schools which could easily be remedied by judicious and resolute action on the part of the Board. Scholars are admitted into the schools at too young an age; they are passed along from one grade to another too rapidly, and they leave the Grammar Schools and are admitted into the High Schools with minds too immature to comprehend and profit by the advanced studies to which their attention must there be called. If the legal limit of admission could be strictly adhered to, or if the lower grades partook more of the character of the Kindergarten, and the children could be retained in them till really fitted for advancement, the evil would be partially remedied. I should recommend a strict limit of age for admission to the grammar grades and to the High Schools. For the last, fourteen should be the minimum, and fifteen would be better still. A limitation of this kind has been found absolutely necessary in some of the Eastern cities, and has resulted in a far higher efficiency of the High Schools. If parents would consider the fact that precocity is not always healthy development, and that mental growth, like bodily, must be gradual, they would not insist so strenuously upon the promotion of their children when poorly prepared. They would not only consent to their remaining another year in a grade when they are not prepared to advance, but would be anxious for it, and we should send out more mature graduates from our Grammar Schools.

SUBSTITUTES.

The present arrangement for filling temporary vacancies is exceedingly wasteful, defective and inefficient. It frequently happens that nearly half the day is past before the substitute reaches the class, and the rest of the day is usually consumed in a vain endeavor to preserve something like order. As far as instruction goes, I can safely say that the work of substitutes, as the matter is at present arranged, amounts to very little. Indeed, most principals would prefer to put a class under a monitor from the First Grade to having it under a substitute for a single day. Our substitute list being changed frequently, contains a large proportion of new and inexperienced teachers, which makes the matter still worse. I would suggest, as an improvement upon the present system, the employing of a certain number of supernumerary teachers, who shall receive half pay except when actually employed in classes, when their pay should be according to the position filled. These teachers should be assigned to certain districts of the city, and report to the principals of certain Grammar Schools every morning. When needed for

substitute work, they would be at hand and no time would be lost. When not so needed, they should be studying the art of instruction in such classes as the principals should direct, or engaged in examining papers, or in doing other school work. From the teachers on this last vacancies in the schools should be filled, and consequently they should be selected with great care and judgment. No teacher should be placed on this list of probationary or supernumerary teachers, unless, in addition to possessing a legal certificate, he or she should have been indorsed by a committee of the Board appointed for the special purpose of examining all teachers applying for positions. I need not say that the graduates of one of our Normal Class should be preferred in said selection. Principals should be required to make weekly reports upon these probationary teachers, showing in what manner they have been employed, and the opinion of the principal regarding their ability and fitness, as well as attention to duty.

SPELLING.

There is, I believe, a radical defect in our methods of teaching this important and practical branch of education. A spelling-book might be an excellent means of imparting a knowledge of the orthography, pronunciation, meaning and use of words, if used in the proper manner; but the ordinary method of obliging the pupil to commit to memory the spelling of column after column, page after page of words, half of which are unfamiliar and which will be forgotten about as readily as they are memorized, is, to my mind, a great waste of time and mental labor. If the pupils' attention be specially called to the spelling of all the words of their reading lessons, of their lessons in geography, grammar and arithmetic, and indeed of all their other lessons—if writing from dictation were practiced daily and systematically, under careful and conscientious correction—it seems to me that a far more satisfactory result would be reached as regards ability to write words correctly, and that is the sole object of learning to spell. Oral spelling should not be entirely neglected, but it should be the exception rather than the rule. The text-book on spelling now in use is a very valuable book to use in the higher grades in studying the orthography, pronunciation, meaning and use of words; but, in my opinion, in the lower grades there would be no objection to throwing it out altogether, and arranging a practical system of word study, based on the reader and the other text-books of the grade.

MEANING OF WORDS.

And this brings me to a special point to which I trust much more attention will be paid in the future than seems to have been done in the past. The frequent misapplication of words by pupils of the higher grades shows conclusively that they have not been carefully trained as to the true meaning and use of the words which have passed under their notice in their various studies. There has been a vast improvement in this respect during the past year, par-

ticularly as regards the reading lessons; the practice of questioning the scholars on the meaning of what they have read, of requiring them to reproduce the subject matter, having been faithfully followed in a large number of classes. But it is certain that the idea is not constantly kept before the minds of all our teachers that all the words used in the various studies pursued should be thoroughly understood. It cannot be denied that by far the larger portion of the knowledge acquired in school is obtained through words. If, then, the words be not properly understood the knowledge itself is very imperfect. The inability, so frequently referred to by High School teachers, of juniors in the High Schools to talk readily and clearly on the subject of instruction, is certainly referable to this deficiency in their previous training.

PENMANSHIP.

The instruction in penmanship has been, with very few exceptions, uniformly excellent. I have, noticed, however, that in some of the higher grades, where an unwarrantable amount of written examination has been practiced, there has been, as might have been expected, a corresponding deterioration in the hand-writing. Many teachers seem to think that their principal duty is to examine their scholars in this way. I should suggest that written examinations, properly so called, should be rigidly limited to one a week.

FREE TEXT-BOOKS.

I have long been of opinion that all text-books should be furnished by the city. It has been conclusively demonstrated in other cities that the supply of text-books costs far less to the community at large by this plan than by the ordinary one. At present we supply books to all those who profess their inability to purchase them. But it is well known that under this system many are supplied who are abundantly able to buy for themselves, and that very many others, whose sensitiveness prevents them from applying for "indigent books," are put to straits to furnish their children with the necessary books. The records of the Department will show a very great increase in the expenditure for this purpose during the past year. If it be objected that the proposed system will lead to waste and to carelessness in the use of books, I would answer that this is a matter for regulation by the principals of the schools, and also that an experience of several years in other cities does not justify this conclusion. Teachers are perfectly aware of the fact that the carrying of books to and fro from between their homes and the school is far more productive of wear and tear than their use in the school-room, under the eye of the teacher. Many of the text-books used need not be taken home, and should be collected and put away when not in use. Under strict and careful regulation one set of books would last for years in a class, and the demoralizing influence of the present "indigent" system would be avoided.

SKIPPING GRADES.

The practice of allowing pupils to "skip grades," which was formerly permitted only in rare cases of special ability and progress in study, has become

altogether too prevalent in the department. It is often productive of great injustice to scholar and teacher. Because a pupil shows unusual attention to study, and holds the first rank in class, it may be, and doubtless is, sometimes a reason for promotion into the next grade, but it is certainly not a good reason why he should pass over one grade entirely, and lose the training and instruction of a whole year. I fear that such promotion is often made merely to fill up a higher class, regardless of the true welfare of the scholar. Many reasons have presented themselves to me, while inspecting classes, why this practice should be carefully restricted and allowed only by special permission of the Superintendent or the Committee on Classification.

TRANSFER OF TEACHERS.

The transfer of teachers at irregular periods is a frequent cause for a loss of interest and a break in the regular work of instruction in classes, which is often too apparent in the deterioration which results. Much less harm would be caused if all transfers should take place only at the end or the beginning of half terms.

TARDINESS OF TEACHERS.

As a general thing the regularity and promptness of the teachers of the department in their attendance at their respective schools is beyond praise, but numerous instances could be pointed out where a contrary habit seems to be indulged in. Because the rules and regulations require that suspension shall follow three cases of unexcused tardiness in one month, it is not a fair inference that a teacher has a right to be tardy twice a month; and yet this is precisely the view of the case which is sometimes taken. A teacher has no moral right to be tardy at all, and certainly no careless and unpunctual teacher can reasonably expect promptness on the part of his pupils.

HALF-DAY CLASSES.

In several schools where there was a great pressure for admission into the Eighth Grades, the experiment has been tried during a part of the past year of having one set of children come in the morning, and another, usually the low Eighth, in the afternoon. This experiment, which met with considerable opposition from many parents who wished their little children to be taken care of during a larger portion of the day, has proved a success. According to the testimony of both principal and teachers, the advancement of pupils has been equal, if not superior, to that of whole day classes. I am satisfied that the principle is a true one, and I should recommend its extension. As regards the economy of the measure there can be no doubt, and I believe that when parents are convinced of the equal progress of the children in their studies they will very generally approve it.

HIGH SCHOOLS.

It has been my duty at various times during the year to examine into the condition of the High Schools, particularly in reference to complaints which have been made that pupils and teachers were not sufficiently occupied during school hours. I have been satisfied, upon thorough investigation, that such complaints are groundless. In both schools the programmes of recitation and study are well arranged, giving to each its due proportion, and fully occupying the time of the principal and teachers. Changes which were made in the course of study in the Girls' High School, although occasionally objected to by parents of the pupils, have proved judicious. Greater provision is now made for a thorough review of the main studies of the Grammar School, but the true object and scope of a High School course is kept fully in view. It would seem advisable that the course of study in this school be enlarged by the establishment of a class intended for the special training of young ladies who desire to enter the State University. There is no doubt that there are many young ladies who would avail themselves of such an opportunity, and there is no reason why equal facilities should not be afforded to pupils of both schools.

CONCLUSION.

The foregoing are a few of the suggestions which I have noted down, from time to time, as bearing upon the welfare and improvement of our system of public education. It is a great source of gratification to reflect upon how much real effective work we know to be done in our schools, in spite of imperfection and disadvantages. The public is not always aware at what sacrifices of ease and pleasure and health the daily ever-wearing work of the school-room is accomplished. Hardly a month passes by that some pale, work-weary teacher does not pass out of the ranks and try by rest and change to rebuild her shattered constitution, too frequently injured beyond repair. Let us, then, cheerfully give our teachers their due meed of praise for their faithfulness and industry, and let us co-operate with them in their efforts to give the best possible training to our children.

Respectfully submitted.

DUDLEY C. STONE,
Deputy Superintendent of Schools.

ANNUAL EXAMINATIONS—MAY, 1877.

CIRCULAR TO PRINCIPALS AND ASSISTANT TEACHERS.

Principals of Grammar Schools are requested to fill out the proper blanks, with the names of their first grade pupils, in alphabetical and vowel order, recording the results of their final examinations, and also their average term standing, in the appropriate columns. Specimens of penmanship will be taken from First-Grade pupils, which will be credited and recorded and sent to the office for inspection. These blanks must be sent to the respective High Schools, without fail, on Mouday, May 28th. Where a class is composed of both boys and girls, two separate lists must be made out. The names of those scholars who have been promoted, honorarily, on their term standing, will be designated by a letter H, in red ink, in the column headed "per cent. in examination." Their term standing must be given with that of the other members of the class.

The examination in the fifth grades is intended simply as an aid to Principals in promoting the scholars of that grade. Their term standing will also be taken into consideration, and those only who attain an average standing of 70 per cent. will receive Certificates of Promotion.

In all cases where it may seem desirable, Principals are authorized to arrange their classes for the coming year, so as to avoid at least a portion of the confusion and delay incident to the re-opening.

The following First-Grade teachers will report to the Principals of the Girls' High School on Friday, May 25th, at 9 A. M.: Miss Short, Miss Stowell, Mrs. Reynolds, Mrs. Mayborn, Miss Lillie, Mrs. Carusi, Miss Cox, Miss Levison, Mrs. Burke and Mrs. Wood.

The following will report at the Boys' High School: Mr. Lambert, Mr. Reed, Mr. Itsell, Mr. Brooks, Mr. Sturges and Mr. Edwards.

Principals and Assistants will observe the following rules:

1. Teachers will require the name and age of each pupil to be written at the head of each paper; also, the name of the school, the grade of the class, the name of the teacher of each class, and the name of the examiner in charge of the class during the examination.

2. Teachers will give the pupils no assistance during the examination, but they may give any explanation necessary to a fair understanding of the questions. The papers of all pupils detected in copying or communicating during the examination should be rejected.

3. All books relating to the subject under examination should be collected by the examiner before commencing the exercises.

4. All papers should be strictly and impartially examined and credited. The Committee on Classification does not desire to fill any grade with incompetent or unprepared pupils.

5. Principals will preserve the papers of each class for the use of the Committee on Classification.

6. All teachers are required to give their undivided attention to the class while passing any examination.

No crediting of papers or other work should be performed during such exercises.

7. No general recess should be given to the classes while passing an examination.

8. In order to secure uniformity in crediting, Principals will arrange the papers to be credited so that the same teacher will credit all the papers of the same study in each grade, except in schools having several classes in the same grade.

9. The examination questions will be delivered, on the order of the Principal, by 8 o'clock A. M., on the day of the examination.

10. Blank certificates of promotion will be furnished to each Principal, and must be delivered to pupils before the close of the term.

11. Principals of Grammar Schools will send to the High Schools, on the morning of Friday, June 1st, for the certificates of graduation of pupils of the First Grade, which they will deliver to the proper parties in their respective schools.

12. Principals are authorized to hold such closing exercises, under the rules of the Board, as they may desire.

13. The credits in each study must be copied into the book of "Record of Examination."

As soon as all the credits of the pupils, including those of the First Grade, shall be entered in this book, the Principals are requested to send it to the Board of Education for the inspection of the Committee on Classification.

14. In grading the pupils of the High, Grammar and Primary Schools, Principals are authorized to arrange the classes of each grade according to percentages.

The pupils of the First Grade classes will be examined for graduating from the Grammar Schools, and for admission to the High Schools, on Friday, Monday and Tuesday, May 25th, 28th and 29th.

The girls will meet on Friday, May 25th, at 9 A. M., at the Girls' High School. The boys will meet at the same time at the Boys' High School.

The teachers of the Girls' and Boys' High Schools will examine and credit all the papers of the candidates for admission to these schools.

Deputy Superintendent Stone will have the general supervision of the examination and of the crediting of the papers.

It is desirable to have the papers of this examination carefully credited, and the work completed as soon as possible.

The percentage of credits for graduation and for promotion is fixed at 70 per cent.

First Grade pupils will be promoted to the High Schools only upon the results of the final examination.

The order of examination in First Grade classes will be as follows: Friday, May 25th, 9:30 A. M., Written Arithmetic; 1 P. M., History of the United States. May 28th, 9 A. M., Grammar; 1 P. M., Geography. May 29th, 9 A. M., Word Analysis; 1 P. M., Spelling; 2 P. M., Mental Arithmetic.

Where First Grade pupils have studied French or German, the total number of credits will be 720.

The order of examination in Fifth Grade classes will be as follows: Monday, May 28th, 9 A. M., Arithmetic; 1 P. M., Language. May 29th, 9 A. M., Geography; 1 P. M., Spelling.

HENRY N. BOLANDER,
Superintendent of Public Schools.

PAPERS USED IN THE SEMI-ANNUAL EXAMINATION OF THE PUBLIC SCHOOLS OF SAN FRANCISCO, DECEMBER 6, 1876.

ARITHMETIC.

FIRST GRADE.

1. When $2\frac{3}{4}$ pounds of coffee cost 55 cents, what will $19\frac{1}{4}$ pounds cost? (Solve by proportion.)
2. If you buy a pencil for 11 cents, and sell it for $12\frac{1}{2}$ cents, what per cent. profit do you make?
3. A merchant deposited \$876 in bank. He drew out at one time $12\frac{1}{2}$ per cent., at another time 10 per cent. of what he then had in bank; he then drew \$650. How did his bank account stand?
4. A house was insured for \$10,000. What was the premium at $\frac{5}{8}$ of $1\frac{1}{4}$ per cent.?
5. How shall I mark hats that cost \$4 so that I may fall $16\frac{3}{4}$ per cent. from the marked price, and yet make 25 per cent.?
6. If you pay $\frac{3}{4}$ of a cent for an apple and sell it for $\frac{3}{4}$ of a cent, do you make or lose, and what per cent.?
7. What is the interest on \$789 50 for 2 years, 7 months and 18 days, at 10 per cent. per annum?

8. What would be the amount of a note whose face is \$2,345, with interest for 1 year, 5 months and 7 days, at 15 per cent.?

9. What would be the cost of carpeting a floor 21 feet long, 15 feet wide, with goods $\frac{3}{4}$ of a yard in width, and worth \$1.87.5 a yard?

10. $(5\frac{1}{2} \times 2 + 4) \div \frac{1}{2} + .75 - 5\frac{1}{4} = ?$ Multiply the result by .4.

SECOND GRADE.

1. Write the prime factors of 57, 91, 78, 81, 36, 65, 92, 72, 42 and 60.

2. Find the cost of the following articles: 25 yards of cloth at \$3.25 per yard; 44 yards of muslin at $13\frac{1}{4}$ cents per yard; 3 dozen buttons at \$1.25 per dozen; $7\frac{3}{4}$ yards of ribbon at 50 cents per yard; 1 fan at \$2.50; 2 pair of gloves at \$1.50 per pair. Suppose the goods to have been bought by yourself at J. J. O'Brien & Co.'s, on November 25th. Write the bill out neatly and receipt it.

3. Reduce the following decimals to a common denominator: .42, .0362, .4, .000065, .386, .7 and .03214.

4. Reduce to common fractions in their lowest terms: .375, .875, .425, .78, .924 and .0025.

5. $\frac{6}{7} + \frac{9}{10} + \frac{3}{4} + \frac{6}{9} + \frac{1}{2} = ?$ $5\frac{2}{11} - 3\frac{4}{13} = ?$

6. $7\frac{2}{3} \times 4\frac{2}{11} \times 7\frac{1}{3} \times 1\frac{2}{3} \times 3\frac{2}{3} \times 1\frac{1}{8} = ?$

7. Reduce 4 lbs., 10 oz., 11 pwt., 21 gr., to grains. Prove by reduction ascending.

8. Find the sum of £4, 11s. 10d. 1 far., £72, 18s. 9d. 1 far., £273, 18s. 7d. 3 far. and £62, 17s. 10d.

9. Divide 1 cwt., 3 gr., 21 lbs., 11 oz. by 12. Prove by multiplication.

10. Define prime numbers, greatest common divisor, least common multiple. Find least common multiple of 14, 21, 28, 18, 4, 20, 12 and 36. Find greatest common divisor of 35, 91, 105.

THIRD GRADE.

1. A grain merchant bought 5,678 sacks of wheat, each weighing 123 pounds, at $1\frac{3}{4}$ cents a pound. Required the cost.

2. What cost $3\frac{5}{8}$ yards of ribbon at 80 cents a yard?

3. How many yards of goods worth $\$ \frac{2}{3}$ a yard can be bought for \$7.50?

4. What would it cost to grade a street 37 rods, 4 yards, 2 feet, at \$4.56 a foot? (Linear measure.)

5. A man sold a farm for 6.875 an acre. It was 800 rods long and 400 rods wide. What did he receive for the farm?

6. What would be the expense of removing the sand for a cellar 18 feet long, 15 feet wide and 6 feet deep, at 25 cents a cubic yard?

7. What would a pile of wood, 16 feet long, 4 feet wide and 6 feet high cost at \$5 a cord?

8. A grocer sold a barrel of whiskey at \$.50 a pint. What did he receive for it?

9. A coal dealer had 14 cwt., 47 lbs., 2 ozs. of fine coal; he sold one-third of it. How much had he left?

10. How do you know when a number is divisible by 2, 3, 4, 5 or 9, without performing the division.

FOURTH GRADE.

1. Reduce $7\frac{3}{4}$ to fourths; $16\frac{1}{2}$ to sevenths; $8\frac{5}{9}$ to ninths; $11\frac{1}{5}$ to fifths; $12\frac{1}{11}$ to elevenths.

2. Reduce $\frac{28734}{234}$ to a whole or mixed number.

3. Reduce $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{1}{2}$ to a common denominator.

4. Add $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{5}{6}$.

5. If you make \$2.35 on Monday, \$3.625 on Tuesday, \$1.40 on Wednesday, \$.875 on Thursday, and spend \$5 $66\frac{2}{3}\%$ on Friday, how much would you have left?

6. If you have \$20.75 and spend \$11 $\frac{1}{8}$, how much would you have left?

7. If you pay \$2.25 for 4 yards of ribbon, what will 6 yards cost?

8. If $\frac{2}{3}$ of a pound of candy cost \$ $\frac{4}{6}$, what is that a pound?

9. $(1\frac{3}{8} + 2\frac{3}{4}) - (\frac{1}{2} + \frac{2}{3}) = ?$

10. Make out the following in good shape: U. S. Grant bought of Newton Booth, December 6, 1876, 14 lbs. rice @ \$.08; 11 lbs. mackerel @ \$.22; $4\frac{1}{2}$ gallons New Orleans syrup @ \$.60; 2 gallons Bourbon whiskey at \$3.50; 30 yards rope @ \$.04.

FIFTH GRADE.

1. $6702 + 397 + 5291 - 3206 - 482 - 7 = ?$

2. Find the cost of 4416 lbs. wheat at 2 cts. per lb., 631 sacks barley at 72 cts. a sack, 214 sacks potatoes at \$1.25 per sack, 95 lbs. butter at 45 cts. a lb., 125 lbs. cheese at 24 cts. a lb. Write out the bill.

3. $\$48.27 \times 96 = ?$ $\$382.46 \times 75 = ?$

4. $(\frac{1}{9} \text{ of } 72) + (\frac{1}{11} \text{ of } 121) + (\frac{1}{7} \text{ of } 49) + (\frac{1}{5} \text{ of } 56) = ?$

5. $\frac{3}{4}$ of 16 = ? $\frac{5}{6}$ of 54 = ? $\frac{7}{8}$ of 64 = ? $\frac{5}{9}$ of 36 = ? $\frac{3}{8}$ of 32 = ?

6. $3\frac{5}{8} =$ how many eighths? $8\frac{7}{11} =$ how many elevenths? $9\frac{3}{7} =$ how many sevenths? $9\frac{7}{9} =$ how many ninths? $12\frac{1}{12} =$ how many twelfths?

7. $\$42,361.21 \div 17 = ?$ $\$821.34 \div 9 = ?$

8. $\frac{1}{13} + \frac{2}{13} + \frac{3}{13} + \frac{4}{13} = ?$ $\frac{5}{9} + \frac{6}{9} + \frac{3}{9} + \frac{1}{9} = ?$

9. $\frac{362}{21} - \frac{410}{21} = ?$ $\frac{38}{11} - \frac{19}{11} = ?$

10. If you receive \$241 on Monday, \$723 on Tuesday, and \$649 on Wednesday, \$846.50 on Thursday, and spend \$1,286.75 on Friday, how much will you have left?

SIXTH GRADE.

1. $482 + 973 + 199 + 650 + 217 + 321 = ?$
2. $3873 - 2986 = ?$ $4006 - 729 = ?$ $821 - 493 = ?$ $6201 - 5821 = ?$ $200 - 146 = ?$

Perform the following examples:

3. $180 \div 7$, $4821 \div 5$, $2146 \div 4$, $513 \div 9$, $1111 \div 3$.
4. Find the products in the following examples, $\$6.75 \times 4$, $\$8.29 \times 5$: $\$32.14 \times 6$, $\$1.29 \times 7$, $\$4.50 \times 3$.

5. Write the following fractions: seven-eighths, three-fifths, four-sevenths, one-ninth, three-twelfths, five-ninths, eight-thirds, nine-halves, two-sevenths, seven-fourths.

6. If you buy 2 oranges for 6 cents, what would four oranges cost?

7. If you write 75 words each day for 6 days, how many words will you have written?

8. If you buy 7 marbles at 2 cents a piece, and sell them for 21 cents, how much do you make?

9. If your mother should give you \$1, and you should spend \$.50 for a book and \$.25 for a slate, how much will you have left?

10. If you spend 5 cents a day for 7 days, how much less than 50 cents will you have left?

GEOGRAPHY.

FIRST GRADE.

1. Explain the theory of Artesian Wells.
2. Tell what you can about the sea bottom.
3. How are the tides caused?
4. How are the Ocean Currents caused?
5. Tell what you can of the Equatorial Current.
6. Tell what you can of the Gulf Stream.
7. Where are the most celebrated Geyser regions?
8. Give the principal water sheds of North America.
9. Which is the largest body of fresh water on the Globe? Which and where is the highest lake?
10. Where would a vessel sailing from New York to San Francisco be likely to encounter calms?

SECOND GRADE.

1. What can you say about the coming of the different species of animals upon the earth?
 2. What is the form of the earth? State how this is known.
 3. How does the ocean act an essential part in the economy of the world?
 4. Locate the following rivers: Niger, Amoor, Columbia, Cambodia and Amazon.
 5. Locate the following: Iceland, Cape Verd, Ural Mountains, Caribbean Sea and Tasmania.
 6. Name two seaports of Mexico on the Western Coast, two capes of South America, and two islands of the West Indies.
 7. Locate the following countries of South America and give their capitals: U. S. of Colombia, Brazil, Peru, Chili, Venezuela.
 8. How do Africa, South America and Australia resemble each other?
 9. What is a plateau?
 10. Name five important towns of New England. Where is Mt. Washington? the Penobscot River? Narragansett Bay? Moosehead Lake?
-

THIRD GRADE.

1. What is the axis of the earth? What is meant by up and down?
 2. Name the zones and tell the lines which bound them.
 3. What varieties of climate may be found in the Torrid Zone?
 4. What is the latitude of the North Pole? the South Pole?
 5. Name the most north-western and the most north-eastern countries in Africa. What prominent cape near the southern extremity? What group of islands off the western coast? Mention the two most important rivers.
 6. Locate Dublin, Vienna, the Bay of Biscay, the Danube, the Straits of Gibraltar.
 7. Mention the principal exports of France. Which is considered the most picturesque country of Europe? Why is it so regarded?
 8. Locate Calcutta, Pekin, Yedo (or Tokio), Behring's Straits, Sunda Straits.
 9. What do we obtain from Japan?
 10. Tell what you can about *China*, its locality, race of men, food of the people, exports, etc.
-

FOURTH GRADE.

1. What States border on the Gulf of Mexico?
2. Name five large rivers in North America and tell into what body of water each empties.
3. Give the names of the Presidents of the United States in their order.

4. Name five of our principal wheat-growing States.
 5. Name two cotton-growing States, two rice-growing States.
 6. When and by whom was Pennsylvania settled?
 7. Name two States that touch Ohio, two that touch Illinois, two that touch Georgia.
 8. Name the capital of each of the following: Maine, New York, Pennsylvania, Virginia, South Carolina, Alabama, Tennessee, Indiana, Nevada, California.
 9. Name two battles fought during the war between the United States and Mexico.
 10. Name ten of the largest cities in the United States.
-

FIFTH GRADE.

1. Define table-land, valley, desert.
 2. Name the four principal bodies of water which bound North America, and three which bound Africa.
 3. Locate San José, Stockton, Marin County, Cape Mendocino, Virginia City.
 4. (a) What prominent Cape in the south-western part of California?
(b) Through what lake does the eastern boundary of the State pass?
(c) Name two prominent mountains which you can see from San Francisco.
 5. Name five wild animals of North America and tell where they are found.
 6. What are the three principal products of the West Indies?
 7. Give the length and breadth of California. How does the State compare with the other States in size?
 8. Bound California and name a State and a Territory whose northern boundary is on the same line with that of California.
 9. Name the largest city in the world, the largest city in North America, the principal range of mountains in North America. What peninsula lies between the Arabian Sea and the Bay of Bengal?
 10. Name and describe the two most important rivers of California.
-

GRAMMAR.

FIRST GRADE.

Six Questions, Ten Credits Each.

1. Define noun, adjective, verb, adverb, pronoun, preposition, conjunction, subject, predicate and phrase.
2. State five different methods of forming the plurals of nouns, with three examples of each.

3. Write a sentence containing an adjective phrase, one containing an adverbial phrase, and one with a noun in opposition with the subject. Give the plurals of valley, potato, wharf and thief.

4. State six uses of a noun. Name four kinds of adverbs.

5. Write the principal parts of the verbs: (a) lie (to recline), draw, lay, go, flee. (b) Give the six tenses of the following verbs: move, bring, know, study and try.

6. Write five separate sentences concerning the city of San Francisco. Combine these sentences into one compound or complex sentence.

SECOND GRADE.

Six Questions, Ten Credits Each.

1. Define: Noun, adjective, verb, adverb, pronoun, preposition, proper adjectives, subject, predicate and phrase.

2. Give ten nouns in both numbers, which have irregular plurals.

3. Mention six uses of a noun.

4. Write five sentences each containing a noun in apposition.

5. Write five sentences, each of the first three containing an adjective phrase, and each of the others an adverbial phrase.

6. Write the possessive singular of man, Moses, judge; and the possessive plural of calf, city, wife. Compare—bad, much, old, beautiful.

THIRD GRADE.

Six Questions, Ten Credits Each.

1. Write a sentence of not less than six words about each of the following objects: (1.) Gold. (2.) Iron. (3.) Marble. (4.) The bear. (5) The lion. (6.) Water. Underline all the words of the subject and doubly underline all the words of the predicate.

2. Correct the following: Between you and I. Your lessons are longer than our's. The leaves laid thick upon the ground. The servant sat the clock on the shelf. Papa means to take my sister and I to the theatre.

3. Define: Noun, adjective, verb, subject predicate.

4. Write ten nouns, in both numbers, which form their plurals irregularly.

5. Give all the methods of forming the plural of nouns, with one example of each.

6. Write five separate statements about the festival of Thanksgiving. Combine them into one sentence, compound or complex.

FOURTH GRADE.

Ten Questions, Six Credits Each.

1. Write three sentences, each containing only three words—a noun, an adjective and a verb.
2. Write three sentences, each containing only four words—an article, an adjective, a noun and a verb.
3. Define: noun, adjective, verb, adverb, pronoun, preposition.
4. Add the suffix *ful* to the following words, and define the adjectives formed: joy, mercy, fancy, fear, pain, health.
5. Give two limiting adjectives, two descriptive adjectives, and two proper adjectives.
6. Supply suitable proper adjectives in the following: The —— queen is named Victoria. The —— elephant is the largest. The —— language is used in Mexico.
7. State three uses of capital letters.
8. What is a sentence? Name two different kinds of sentences.
9. Correct: Hain't he gone yet? He knowed I could beat him running. Between you and I. Father took mamma and I to the theater. I didn't do nothing. He had just went home.
10. What do we call verbs which require objects to complete the sense? Give two examples. What do we call verbs that do not require objects to complete the sense? Give two examples.

FIFTH GRADE.

Ten Questions, Six Credits Each.

1. What is a sentence? What is a noun? What is a verb?
2. What is a sentence called that states a fact? One that is used in asking a question?
3. Describe a piano by answering these questions: 1. What is it?
2. What is its use? 3. What is it made of?

Write first, three separate sentences, and then write the whole in a single sentence.

4. Write six nouns, six verbs, and six adjectives.
5. Fill up the following blanks with suitable adjectives and verbs:

Adjective.	Verb.
The ——	sun ——.
A ——	man ——.
——	children ——.
——	horses ——.
The ——	car ——.
A ——	teacher ——.

6. Write three sentences, each containing only four words—an article, an adjective, a noun and a verb.

7. Correct: It is him. Him and her went. Between you and I. Lay down, Towser! John done it.

8. Copy the following sentences and underline the prepositions: The men are in the field by the river. I can write on paper without pen or ink, with a pencil. We went from the house without a word. Apples grow on trees. He is within the house. John came to California in 1852, on a sailing vessel.

9. What term is used in grammar for connecting words, relation words, emotion words, words standing for nouns, quality words. how, when or where words.

10. Add the suffix *er* to the following words and define each noun formed: work, rob, rub, buy, travel.

SIXTH GRADE.

Six Questions, Ten Credits Each.

1. Write five nouns and five verbs.

2. What is a sentence? Make sentences by telling what the following animals do: The hen. The snake. The rat. Wolves. A cow.

3. Write the names of five parts of a house, and underline the nouns. Example: The *top* of a *house*.

4. Make declarative sentences by telling something about the following objects: A river. A teacher. A cat. An ox. Horses.

5. Change the above to interrogative sentences.

6. Describe the school house you are in by answering the following questions: (1.) What is it called? (2.) Where is it? (3) What is it made of? (4.) Is it large or small? (a) Write as many sentences as there are questions. (b) Combine all these statements into one sentence.

BIOGRAPHICAL SKETCHES.

FIRST, SECOND AND THIRD GRADES.

[The teacher will select either of these two subjects, and place the outline on the black-board as a guide to the pupils in this exercise.]

COLUMBUS.

Birth—time and place.

Early education.

Place where his youth was spent.

Inclination for a sailor's life—causes of this. What was at this time the common belief as to the earth's form?

Views of Columbus—opposition to his views.

Plans for a voyage to test the truth of his theories.

Applications for aid.

His patrons—Ferdinand and Isabella.

Fitting out of vessels.

First voyage. Date and results.

Second voyage. Date and results.

Third voyage.

Fourth voyage.

Naming of the West Indies and America.

Influence of his enemies with the King, and what they accomplished to injure him.

Death and circumstances of his burial, and removal of his body.

WASHINGTON.

Birth—when and where.

Residence, education, sports.

Occupation during latter part of youth—Public Surveyor.

Service in the French and Indian War.

Rank.

Causes of war—Territories of the French and English.

Washington as commissioner to the French.

Braddock's defeat and Washington's valor.

Washington made Commander-in-Chief.

Close of French and Indian war.

Results.

Resignation of Washington.

A member of the House of Burgesses of Virginia for 15 years.

Condition of Colonies at this time.

Causes of the Revolutionary war. Declaration of Independence.

Battle of Lexington.

Brief account of the progress of the war.

Surrender of Saratoga.

Winter at Valley Forge.

Aid from foreign nations.

Yorktown—close of war.

Results.

HISTORY.

FIRST GRADE.

1. Mention one important event of Washington's administration. What was a principal cause of the war of 1812?
2. Name two Battles of that war. Who was Osceola? Alexander Hamilton? Packenham? Tecumseh? Jackson?

3. In what State did Dorr's Rebellion take place? What was one great cause of the Mexican war? Name four Battles of this war, giving the name of the American Commander in each. Give two other noted names in connection with this war? Why have we as Californians, a special interest in the history of the war with Mexico?

4. State briefly what you know about the founding of California.

5. Mention the chief political and military events of 1861.

SECOND GRADE.

1. What can you say of Cortez, his time, character, achievements, success.

2. (a) What European discovered the Mississippi? (b) Who made discoveries along the Gulf of St. Lawrence, laying the foundation of the French claim to that territory? (c) Mention two noted names in connection with the settling of Plymouth.

3. (a) When and by whom was Pennsylvania settled? (b) What can you say in reference to the relation of that colony with the Indians? (c) What is the most eminent name in connection with the early history of Maryland?

4. Who was King Philip? Oglethorpe? Drake? Braddock? Marquette?

5. Five important dates in American history, with the events to which they refer.

DRAWING.

FIRST GRADES.

To design a rosette within an octagon 3 inches in diameter. Octagon may be measured but not ruled. Must be finished in one hour. [15 Credits.]

Upon the reverse side of the paper draw an ellipse of the following dimensions, viz: transverse diameter, 3 inches; conjugate, 2 inches. [5 Credits.]

Also, an oval 3 inches long and about 2 inches at the widest part; both figures to be finished in one hour. [5 Credits.]



SECOND GRADES.

Draw a design within an octagon 3 inches in diameter. Octagon may be measured but not ruled. Must be finished in one hour. [15 Credits.]

Upon the reverse side of the paper draw an ellipse of the following dimensions, viz: the transverse diameter, 3 inches; conjugate, 1 inch and a half. [5 Credits.]

Also, an oval 3 inches in height and about two inches across at the widest part. [5 Credits.] Both figures to be drawn in one hour.

THIRD GRADES.

Draw a design within an octagon 3 inches in diameter. Octagon may be measured but not ruled. Take Ex. 7, a Lotus Ornament (Intermediate book No. 2), as the element. Must be finished in one hour and fifteen minutes. [16 Credits.]

On the reverse side of the paper (with instruments) bisect any angle. [3 Credits.]

Construct a right angle at the extremity of a line. [3 Credits.]

Trisect a right angle. [3 Credits.] Must be finished in 45 minutes.

FOURTH GRADES.

Draw a design within a square 3 inches in diameter. Square may be measured but not ruled. Take Ex. 7, a Lotus Ornament (Intermediate book No. 2), as the element. Must be finished in one hour. [15 Credits.]

On the reverse side of the paper make illustrations of concentric squares, lines perpendicular to each other, simple and compound curves on an axis, and the shape of a sector. Must be finished in one hour. [5 Questions, 2 Credits each.]

FIFTH GRADES.

Draw from Intermediate Drawing Book, No. 1, Ex. No. 1, the Greek Fret, 4 inches in length and 1 inch wide, not including the outside lines, (which may be ruled) all the rest being free hand. Must be finished in one hour and a half. [25 Credits.]

SIXTH GRADES.

Draw the Greek and Latin Crosses with double lines inside, each about 3 inches long. To be finished in one hour and a half. [25 Credits.]

NOTE—Specimens must be drawn in the drawing books, and be credited by the class teachers.

SPELLING.

FIRST GRADE.

Fifty Words, One Credit Each.

Pretext, excitement, overwhelming, unconscious harbored, baseness, emphasis, sinful, plausible, unworthiness, receptacles, judgment, sullenness, threatened, imperious, incorruptible, poignant, yielding, indispensable, sympathy, explicitly, struggle, myriads, cataracts, rabble, irresistible, wrecks, buildings, shrieks, inflammable, furniture, anxiously, barrier, catastrophe, amphitheatre, muscle, sovereign, relief, inexplicable, reference, difference, tranquil, diseases, piercing, ancient, inadequate, criminal, complaisance, fashion, primrose.

Write from memory the first two stanzas of "Tired of Play." Five credits for each stanza correctly reproduced.

SECOND GRADE.

Fifty Words, One Credit Each.

Figure, exterior, inquiries, revenues, scrupulously, assiduous, deficit, deficiency, accustomed, obviously, benighted, ascertained, vitality, fringes, enamels, sagacity, unintelligible, mysterious, laborious, baffled, witnesses, destroying, seized, impostor, guineas, business, slipped, privilege, height, plaintiff, foreman, lodgings, energetic, iniquitous, disciplined, irritable, fretting, misery, roguish, superannuated, reprimand, reverie, languid, pursued, inscrutable, scenes, rippling, oblivion, listlessly, incessant.

Write from memory the first two stanzas of "Tired of Play." Five credits for each stanza correctly reproduced.

THIRD GRADE.

Fifty Words, One Credit Each.

Strength, size, stateliest, breeze, brightest, verdure, tickled, anguish, despair, leisurely, begged, beginning, shoveling, charity, poverty, stammering, wretched, sorrows, affectionately, benevolent, symptoms, carriage, immediately, parcel, exclaimed, vehicle, shocking, equally, inconvenience, silenced, agreeing, drowsiness, recollect, narrative, rubbed, soldier, reckoned, climbing, burst, delightfully, terrible, mortifications, strengthened, manner, triumph, tottered, melancholy, variable, treading, brilliant.

Write from memory the first two stanzas of "Tired of Play." Five credits for each stanza correctly reproduced.

FOURTH GRADE.

Fifty-six Words, One Credit Each.

Integrity, length, assistance, terror, trying, impulse, occupied, whispered, cloak, narrated, dishonest, exceedingly, assured, ill-natured, anger, stopped, unluckily, pursuit, shoulder, thyme, ewe, puzzled, conveyed, harness, frolics, straight, plowman, island, rugged, summit, mirthful, runaway, fondled, companions, surrounded, blazing, infallible, struggling, slightly, privileges, sacrifices, persuade, exclaimed, tamed, countries, exactly, earthquakes, crevice, academy, pitied, neglected, classmate, custom, soars, strength, disdain.

Write from memory the first two stanzas of "Gentle River." Two credits for each stanza correctly reproduced.

FIFTH GRADE.

Fifty-six Words, One Credit Each.

Difficult, supply, money, whose, neighbor, happiest, succeeded, village, lazy, fatigue, prisoned, safely, journey, eagerly, replied, joyfully, dinner, begging, surely, wagging, decide, flourishing, fortnight, forty, crutches, crippled, breakfast, frightened, strength, length, cunningly, mischief, seizing, ribbons, parasol, applause, entangled, diamonds, believe, tortoise, incredible, leisurely, winner, design, commercial, drawled, syllable, quarrel, skull, snail, laughing, appeared, started, dined, rascals.

Write from memory the first two stanzas of "Gentle River." Two credits for each stanza correctly reproduced.

SIXTH GRADE.

Sixty Words, One Credit Each.

Parent, playing, fields, aunts, money, running, instead, guilty, clothes, taught, selling, trouble, country, piece, chalk, trying, called, venture, uneasy, pleasant, agreed, cabbage, rabbits, beautiful, blooming, gardener, meddle, yesterday, ashamed, village, locked, mischief, happier, believed, deceived, wires, flying, trying, thought, people, neighbors, cabin, jumped, threw, night, heavily, peeping, prayer, dollar, cage, calling, birthday, supposed, wrapped, obliged, piece, four, monkey, though, bitten.

WORD ANALYSIS.

FIRST GRADE.

1. Define what is understood by an open, and what by a closed syllable.
 2. Define the following Latin prefixes accordingly: ab, add, circum, con, contra, de, dis, ex, in, inter, intro, ob, per, pre, pro, preter, re, retro, se, sub, subter, super, trans.
 3. Restore the original form of the prefix in the following words: suffer, occur, aggregate, affluence, illegal, illiterate, intellectual, immortalize, offer, differ.
 4. What is meant or understood by the assimilation of the liquids: l, m, n, r. Illustrate.
 5. Combine the prefixes, ad, de, e, pre, in, con, with the roots lude and lus.
 6. Explain the origin of the ll, mm, nn, rr, in the following words: collect, collusion, commit, irregular, immovable, irrevocable, irresistible, intellect, commotion, college.
 7. Explain the double consonants, pp, ff, cc, gg, in the following words: oppose, suppose, supplement, effect, efficient, diffuse, succeed, accident, occur, aggression.
 8. Define the suffixes ate, al, ive, ous, or, ist, ion, ment, aceous, ac.
 9. Combine the suffix aceous with the following words: ceta, folia, saponia, farina, lilia, crusta.
 10. Give five derivatives of the roots pel and puls; pan and pose; pend and pens; mit and miss.
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SECOND GRADE.

1. Define prefix, suffix, termination, derivative and primitive.
2. Arrange the following prefixes as open or closed syllables: a, con, dis, in, pre, re, super.
3. Combine, duty, beauty, with the suffix ous; add ly to due, true, whole, and ing to shoe, hoe, sing, singe.
4. Combine the suffix able with the following words: blame, pass, compare, separate, console, estimate, eat, answer, consume, desire, deplore.
5. Combine the suffix er with curry, bug, love, rob, hat, hate; and define the suffixes: ar, ard, fy, ish, ive.
6. Define the prefixes: con, re, dis, in, pre, super.
7. Form four derivative words of bound, pay, help, judge.
8. Form two derivative words with each suffix kin, let, and define.
9. Analyze the following words: firmness, fineness, creative, preventive, civilize, brutalize, legalize, equalize, banishment, friendship.
10. Form five words with the suffix ion, and define.

SPECIAL EXAMINATION, MARCH, 1877.

ARITHMETIC.

FIRST GRADE.

1. If $6\frac{3}{4}$ yards of calico cost 75 cents, what would $33\frac{1}{4}$ yards cost at the same rate. (Proportion.)
2. If 7 men in 8 days make \$140, how many dollars would 16 men make in 14 days? (Proportion.)
3. A merchant bought $29\frac{1}{2}$ pieces of goods, each piece containing $46\frac{3}{4}$ yards, at $\$3.12\frac{1}{2}$ a yard, and sold the whole at $\$3\frac{5}{8}$ per yard; what was the gain per cent? (Two extra credits for the shortest method of solving this problem.)
4. A note for \$400, dated Nov. 19, 1874, has the following endorsement: Received January 24, 1875, \$67 50; received August 11, 1876, \$83; what is due on the note February 28, 1877, allowing it to bear interest at 10 per cent. per year.
5. What would be the proceeds of a note for \$800, bearing interest at 8 per cent. for 1 year, and discounted at bank two months before maturity, at 2 per cent. a month, without grace?
6. What is the compound interest of \$500 for 3 years, 5 months, 15 days, at 9 per cent. per annum?
7. (a) What is the worth of a rectangular field $155\frac{1}{3}$ rods long, by $78\frac{2}{3}$ rods, at \$24.50 per acre?
(b) What would it cost to fence the above at \$1.25 per rod of fencing?
8. (a) Find the sum, the difference and the product of $\frac{1}{16}$ and $\frac{1}{7}^2$.
(b) Find the sum, the difference and the product of .008 and .1234.
9. How much will it cost to build a wall $94\frac{1}{2}$ feet long, $18\frac{2}{3}$ feet high, and $4\frac{1}{2}$ feet thick, at $\$5.62\frac{1}{2}$ a cubic yard?
10. Find the balance on hand on February 20, in the following cash account:
February 18, received \$42.75, \$4.29, \$186.40, \$1.29, \$400, \$321.89. Paid out, \$.50, \$1.75, \$10 40, \$201.65, \$111.65. February 19, received \$42.50, \$1.15, \$2.46, \$18.75, \$92.50, \$100.75. Paid out, \$18, \$11.20, \$62.75; \$1.10, \$.40, \$150.40. February 20, received \$500. Paid out, \$150.50. How much cash on hand?

SECOND GRADE.

1. Prime factors of 51, 57, 76, 78, 90, 91, 80, 81, 87, 98.

NOTE.—The teacher will give out these numbers singly and allow a half minute for the pupil to solve each example mentally. If the work is written no credits to be allowed.

2. (a) Reduce $\frac{2}{7}$, $\frac{2}{3}$, $\frac{1}{4}$, to a common denominator.
 (b) Reduce $\frac{5}{7}$, $\frac{2}{3}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{5}{6}$, to the least common denominator.
3. $(14\frac{5}{6} \times 180) + (11\frac{4}{7} \times 84) + (1\frac{3}{5} \times 195) + (12\frac{6}{11} \times 132) = ?$
4. Reduce $\frac{5}{7}$, $\frac{4}{8}$, $\frac{3}{11}$, $\frac{3}{7}$ and $\frac{8}{9}$ to decimals of not over four places.
5. (a) $5\frac{3}{2} - 1\frac{1}{2} = ?$
 (b) $621\frac{1}{2} - 59\frac{3}{7} = ?$
 (c) $111\frac{4}{3} \div 5 = ?$
 (d) $2701\frac{6}{11} \div 3 = ?$
 (e) $\frac{4}{5} \times \frac{2}{7} \times \frac{4}{5} \times \frac{1}{11} = ?$
6. Reduce 1 ton, 11 cwt., 3 q., 21 lb., 11 oz. to ounces, and prove by reduction ascending.
7. Add 12 lbs., 6 oz., 15 pwt., 21 gr. 13 lbs., 11 oz., 10 pwt., 2 gr. 27 lbs., 1 oz. 11 gr. 72 lbs., 5 oz., 17 pwt. From the sum subtract 5 lbs., 11 oz., 16 pwt., 17 grains. Multiply the remainder by 7. Divide the product by 3.
8. Reduce to common fractions in their lowest terms .53, .0072, .008, .1234, .0333.
9. Find the interest of \$673.50 at 8 per cent. per year, for 3 years, 4 months and 15 days.
10. (a) Find the sum, the product and the difference of $\frac{1}{30}$ and $\frac{1}{10}$.
 (b) Find the sum, the difference and the product of .15 and .00021.

THIRD GRADE.

1. (a) If the sum of the digits of a number is divisible by 9, by what two numbers must the number be divisible?
 (b) If a number ends in a cipher, by what three numbers must it be divisible?
 (c) A number ends in a cipher and the sum of the digits is divisible by 3. Name five exact divisors of the number.
 (d) $(4962 \times 33) + (9218 \times 536) + (1009 \times 341) = ?$
2. $4\frac{5}{9}$ yards at 81 cts. a yard; $7\frac{3}{4}$ yards at 36 cts. a yard; $12\frac{1}{2}$ yards at \$1.44 a yard; $2\frac{3}{11}$ yards at 77 cts. a yard; $7\frac{1}{8}$ yards at 95 cts. a yard. Find the sum of the products.
3. Reduce 184,216 seconds to days, hours and minutes.
4. Reduce 153 deg., 59 min., 42 sec. to seconds.
5. What would it cost to fill a cellar with wood at \$4.40 a cord, if the cellar is 24 feet long, 18 feet wide, and 7 feet high?
6. $(\frac{2}{5} \text{ of } 155) + (\frac{2}{3} \text{ of } 414) + (\frac{6}{7} \text{ of } 847) + \frac{1}{2} \text{ of } 204 + (\frac{5}{3} \text{ of } 1521) = ?$

7. Find the interest of \$550 for 2 years, 6 months and 15 days, at 8 per cent. per year.
8. Amount of \$1,200 for 1 year, 10 months. at $1\frac{1}{4}$ per cent. per month.
9. (a) $78,321 \div 354 = ?$
 (b) $96,146 \div 79 = ?$
 (c) $\frac{4}{5} + \frac{1}{2} + \frac{3}{4} + \frac{1}{2} - \frac{5}{8} - \frac{1}{8} - \frac{1}{3} = ?$
 (d) Find the cost of excavating a cellar 25 feet long, $14\frac{1}{2}$ feet wide, and 6 feet high, at $2\frac{1}{2}$ cts. a cubic foot.
 (e) $7\frac{3}{4} \times 114 = ?$
10. (a) What is the worth of a farm containing 4 acres, 116 sq. rods, 100 sq. feet, at $\frac{1}{2}$ cent a square foot?
 (b) What is the worth of a field 80 rods long and 60 rods wide, at \$25 per acre; and what would it cost to fence it at $\$1.12\frac{1}{2}$ per rod of fencing?

FOURTH GRADE.

1. $6\frac{1}{2} =$ how many fourths? $5\frac{3}{4} =$ how many sixths? $4\frac{1}{4} =$ how many fifths? $3\frac{5}{6} =$ how many twelfths? $2\frac{3}{4} =$ how many sixteenths?
2. $14\frac{2}{3} + 15\frac{3}{6} - \frac{3}{4} = ?$
3. $3\frac{5}{8} \times 1\frac{3}{8} = ?$
4. $14\frac{1}{3} \div 3\frac{5}{8} = ?$
5. Reduce to a decimal the following: $\frac{3}{4}$, $\frac{7}{10}$, $\frac{13}{20}$, $\frac{33}{40}$, $\frac{57}{84}$.
6. What is the interest of \$300 for 2 years, 7 months and 18 days, at $1\frac{1}{2}$ per cent. per month?
7. What is the interest of \$600 for 8 months, at 10 per cent. per annum?
8. Find the amount of the following bill: $22\frac{1}{2}$ lbs. sugar at 14 cents; $19\frac{1}{2}$ gallons of molasses at 70 cents; $11\frac{3}{4}$ lbs. coffee at 24 cts; 16 lbs. fish at $18\frac{3}{4}$ cents. Receipt the bill.
9. Bought $27\frac{1}{2}$ yards of goods at 40 cents a yard, and sold it at 50 cents a yard; what was the gain?
10. Multiply eighteen-ten-thousandths by twenty-five thousandths, and divide the product by nine hundredths. Perform the work by decimals, and then give the result in a common fraction.

FIFTH GRADE.

1. $8246 + 432 + 9097 + 273 - 770929 = ?$
2. Find the cost of 35 lbs. codfish at 11 cents a pound; 114 lbs. white sugar at 16 cents a pound; 10 gallons of coal oil at 45 cents a gallon; 83 lbs. of coffee at 26 cents a pound; 4 dozen eggs at 55 cents a dozen; Write out the bill.

3. On Monday you receive the following sums: \$40.62, \$3.45, \$1.50; and you pay out \$10, \$7.75, \$.50 and \$1.75. On Tuesday you receive \$150, and pay out \$50.50. How much money will you have on Tuesday evening?

4. $486,221 \div 72 = ?$ $82,011 - 7,555 = ?$

5. Find the sum of $\frac{7}{9}$ of 99, $\frac{8}{11}$ of 132, $\frac{3}{4}$ of 36, $\frac{5}{8}$ of 64, $\frac{1}{3}$ of 21, $\frac{3}{4}$ of 48.

6. $6\frac{7}{8}$ = how many eighths? $11\frac{5}{7} = ?$ $7\frac{8}{9} = ?$ $12\frac{1}{4} = ?$ $8\frac{3}{8} = ?$ $1\frac{2}{3} = ?$ $1\frac{9}{11} = ?$
 $5\frac{7}{3} = ?$ $4\frac{9}{6} = ?$ $2\frac{7}{4} = ?$

7. (a) $\frac{1}{3} + \frac{7}{3} + \frac{6}{3} + \frac{1}{3} + \frac{4}{3} + \frac{1}{3} + \frac{3}{3} = ?$

(b) $\frac{7}{2} + \frac{1}{2} + \frac{5}{2} + \frac{3}{2} + \frac{8}{2} = ?$

8. $1\frac{1}{2} - \frac{2}{3} = ?$ $4\frac{7}{2} - \frac{9}{2} = ?$ $1\frac{5}{6} - \frac{2}{6} = ?$ $\frac{22}{6} - 1\frac{7}{6} = ?$ $2\frac{3}{4} - \frac{7}{4} = ?$

9. $11,216 \div 54 = ?$ $102,307 \div 27 = ?$ $\frac{7}{9}$ of 54 = ? $\frac{2}{7}$ of 56 = ? $\frac{3}{4}$ of 27 = ?

10. $2783 \times 179 = ?$ $6409 \times 227 = ?$

SIXTH GRADE.

1. $5234 - 986 - 27532 - 70707 - 982 - 489 = ?$

2. $\$7.53 \times 5 = ?$

$82.34 \times 7 = ?$

$8.37 \times 9 = ?$

$76.55 \times 4 = ?$

$7.35 \times 8 = ?$ Find the sum of the products.

3. $408192 \div 7 = ?$ $802906 \div 8 = ?$

4. $7349 \times 40 = ?$ $1809021 \times 80 = ?$

5. $62734 \times 60 = ?$ $4000 - 3829 = ?$

6. If 11 books cost 22, what will 9 books cost?

7. If you have \$5 and spend \$1.50 for a ball, and 75 cents for a slate, how much will you have left?

8. If a man start on a journey of 100 miles, and ride 9 miles an hour for 8 hours, how far will he be from his journey's end?

9. Write the following fractions: seven-twelfths, nine-sixths, four-elevenths, two-fifths.

10. $\frac{1}{6}$ of 42 = ? $\frac{1}{6}$ of 35 = ? $\frac{1}{7}$ of 21 = ? $\frac{1}{8}$ of 64 = ? $\frac{1}{9}$ of 63 = ? $\frac{1}{4}$ of 36 = ?
 $2970 - 859 = ?$ $14201 - 6623 = ?$ $14000 - 7234 = ?$ $488 \times 9 = ?$ $10708 \times 7 = ?$

SEVENTH GRADE.

1. $8 = 5$ - how many? $8 = 14$ - how many?

2. $4 + 5 + 3 - 2$ = how many less than 20?

3. $3 \times 4 + 5$ = how many less than 21?

4. $15 \div 3 = 7$ - what?

5. From the sum of 7 and 10 take 5 + 1.
 6. What would 5 oranges cost at 3 cents a piece?
 7. If you pay 10 cents for 2 pencils and 5 cents for a cake, how much money do you spend?
 8. If you have 25 cents and buy a book for 15 cents, how much would you have left?
 9. If you buy 4 apples at 2 cents a piece, how much less than 10 cents will you pay for them?
 10. Add 2, 3, 4, 5, 6, 4 and 1. Add 7, 6, 5 and 4. Add 9, 8, 4 and 3.
- | | |
|------------------|-----------------|
| $3 \times 3 = ?$ | $8 \div 4 = ?$ |
| $3 \times 5 = ?$ | $9 \div 4 = ?$ |
| $3 \times 7 = ?$ | $7 \div 4 = ?$ |
| $3 \times 4 = ?$ | $6 \div 4 = ?$ |
| $3 \times 6 = ?$ | $12 \div 4 = ?$ |

ANNUAL EXAMINATION OF THE PUBLIC SCHOOLS OF SAN FRANCISCO, MAY, 1877.

ARITHMETIC.

FIRST GRADE.

Eight Questions, Ten Credits Each.

1. In the following cash account find the balance on hand at the end of each day, carrying the balance over from the 10th to the 11th:

May 10th. Received \$72.50, \$361.29, \$400, \$3.41, \$1.75, \$240.50.
Paid out \$100, \$216, \$74.24, \$3.27.

May 11th. Received \$74.50, \$92.25, \$100, \$1.40, \$1.75, \$700.35.
Paid out \$500, \$94.21, \$10, \$49.75, \$259.40, \$142.73.
2. Divide 7 miles, 5 furlongs, 29 rods, 5 yards, 2 feet, 7 inches by 15. Prove by multiplication.
3. Reduce the following expression to its simplest form:

$$\frac{\frac{2}{3} \text{ of } \frac{5}{6}}{\frac{2}{3} \text{ of } 4\frac{1}{2}} \div \frac{1\frac{1}{2}}{9 \times 7\frac{1}{2}}$$
4. Two rafters, each 35 feet long, meet at the ridge of a roof 15 feet above the attic floor; what is the width of the house? (Answer to two decimal places.)

5. (a) Find the value of a rectangular field $656\frac{1}{2}$ rods long and 248 rods wide, at \$40 per acre. (5 credits.)
 (b) What is the cost of the fence at \$1.25 per rod? (3 credits.)
6. (a) Find the amount of \$3,250, for 1 year, 7 months and 15 days, at $1\frac{1}{2}$ per cent. per month.
 (b) Find the square root of 2,313,441.
7. (a) Find the sum, the difference and the product of $3\frac{3}{4}$ and $11\frac{1}{2}$.
 (b) Find the sum, the difference and the product of .004 and .345.
8. A merchant bought goods for \$1,500. He paid for storage, \$149.50; for insurance, \$60.50. He sold the goods for \$2,052. What per cent. profit did he make?

WORD ANALYSIS.

FIRST GRADE.

Forty credits.

1. Divide the following Latin prefixes into open and closed syllables: ab, ad, con, de, dis, ex, in, inter, ol, per, pre, re, se, sub, super, trans.
2. Restore the original form of the prefix in the following words: accord, affinity, opponent, aggregate, illegal, illiterate, succeed, effect, differ, intellect.
3. Combine the prefix *in*, with the following words: regular, religious, movable, legal, resistible, liberal, legitimate, material, measurable, mediate.
4. Form four derivative words from the root, *cord*; and four from the root, *curr*.
5. Combine the root, *rupt* and *cede* or *ceed* with the following prefixes: ab, e, con, inter, ad, re, pre, ex, pro, sub.
6. Define the following suffixes: aceous, al, ance, ate, ic, ize, ion, ive, ory, ose.
7. Combine the following Greek prefixes: *thermo*, *chrono*, *dia*, *anemo*, *hygro* with the word *meter*, and define each word.
8. Combine the following prefixes, in, ex, con, pro, dis, re, with the root *pul* and *puls*.

MENTAL ARITHMETIC.

FIRST GRADE.

Twenty Questions, One Credit Each.

NOTE.—Questions to be dictated, and from half a minute to two minutes allowed for each solution.

1. $72 \div 9 + 13 - 10 - 9 - 3 - 12 = ?$
2. One man can do a piece of work in 6 hours, and another in 8 hours. In how many hours would they do it working together?

3. $2\frac{1}{2}$ is what per cent of 10?
4. 3 is what per cent. of 21?
5. What is the distance around a room 16 feet long and 12 feet wide?
6. 39 is $\frac{3}{5}$ of what number?
7. What is $\frac{1}{3}$ of 51?
8. What is the sum of $\frac{7}{12}$, $\frac{1}{2}$ and $\frac{1}{8}$?
9. What is the difference of $\frac{2}{3}$ and $\frac{4}{5}$?
10. What is 9 per cent, of \$700?
11. What is $11\frac{1}{2}$ per cent. of \$600?
12. What is the product of $12\frac{1}{4}$ by 8.
13. What is the cost of $3\frac{1}{2}$ lbs. of sugar at 15 cents a pound?
14. $18+17+16-1=?$
15. What is the interest of \$1.200, for 2 years, at 8 per cent. per year?
16. What is the sum of $\frac{1}{5}$ of 35, and $\frac{2}{7}$ of 21?
17. What is the product of $\frac{4}{11}$ of 22, and $\frac{3}{7}$ of 28?
18. Give the length of the diagonal of a room, 8 feet long by 6 feet wide.
19. Name the prime factors of 164.
20. Divide .051 by 3.

HISTORY OF THE UNITED STATES.

FIRST GRADE.

1. Name the fourth, the seventh, and the eighteenth President, and tell which Presidents died during their term of office.
2. In whose administration did each of the following events take place:
 - (a) The purchase of Louisiana.
 - (b) The breaking out of the Rebellion.
 - (c) The Admission of Texas.
 - (d) The Whisky Insurrection.
 - (e) The war with Algiers.
3. Name one noted event in the history of each of the following: Gen. Meade, Commodore Perry, Admiral Farragut, Commodore Decatur, General Jackson.
4. For what was Alexander Hamilton especially noted?
5.
 - (a) Which President was impeached?
 - (b) Who was the author of the Compromise Bill of 1850?
 - (c) What General commanded the Americans in the battles of Palo Alto and Buena Vista?
 - (d) Who was General-in-Chief of the American forces at the beginning of the Civil War?
 - (e) Who commanded the Alabama at the time of her destruction?

6. (a) Name the first State admitted into the Union.
 (b) Name a State acquired from the Spanish Government.
 (c) Name a State acquired from the French Government.
 (d) Name the first State to rebel against the Government.
 (e) Name the last territory acquired from a foreign power.
7. Give the dates of the following:
 (a) Close of the last war with England.
 (b) Close of the Rebellion.
 (c) The inauguration of Grant.
 (d) Admission of Texas.
 (e) Treaty of Guadalupe.
8. Name five distinguished American inventors, and the particular invention of each.
9. State the change that has taken place in the United States during the past century, in regard to number, area and population.
10. Name five Indian chiefs prominently mentioned in American history, and state the section in which each lived.

SPECIAL QUESTIONS.

A correct answer to either of these will cancel one credit of failure.

1. What were the Sanitary and the Christian commissions?
2. What was the Thirteenth Amendment to the Constitution?
3. What was the amount of the public debt at the close of the Civil War?
4. Name two distinguished American historians, and two noted American poets.
5. Name two Catholic missionaries noted for their explorations in America, and state the general locality of the discoveries of each.

 SPELLING.

FIRST GRADE.

Sixty Words, One Credit Each.

Beauties,	Fragrance,	Enameled,
Eecstasy,	Eschew, X	Epicure, X
Throbbcd,	Gallantly,	Corridor,
Intoxication,	Skirted,	Alleviate,
Revelry,	Gastronomic,	Anniversaries,
Urchin,	Laurel,	Collision,
Voluptuary,	Bosom,	Remittance,

Ferry.

Gourmand,	Buffalo,	Isothermal,
Foreign,	Struggled,	Feathery,
Banqueting,	Fiercely,	Innutritious,
Handkerchief,	Precipitancy,	Drainage,
Officious,	Anguish,	Territories,
Valleys,	Vengeance,	Petroleum,
Lieutenant,	Sincerity,	Machinery,
Galloping,	Suppliant,	Geysers,
Prairie,	Huddled,	Reservoir,
X Maneuver,	Hurrying,	Fissures,
Diversified,	Jocosely,	X Percolates,
Harassing,	Portrait-painter,	Reciprocity,
Dissipated,	Benefiting,	Unrepentant.

GRAMMAR.

FIRST GRADE.

Ten Questions, Six Credits Each.

1. (a) Write the plurals of *chimney*, *money* and *pony*, and give the rules that apply.
- (b) Give the different degrees of *bad*, *healthy*, *red*, *sweet*, *little*, *far*.
2. "Robert has learned his lesson." Change to all the other tenses of the same mood, indicating each tense.
3. Write a sentence containing the word *that* used in three different ways, and tell what part of speech it is in each position.
4. Define a primitive word, a derivative, a compound, and give one example of each.
5. (a) State for what purpose *nouns* are inflected. *Verbs*. *Adjectives*.
- (b) State the difference in the use of the letter *s*, as applied to the inflection of verbs and nouns.
6. Correct, if wrong, and briefly state the reason of the correction:
 - (a) My friend and companion are dead.
 - (b) The best assortment of goods are always on hand.
 - (c) Between you and I, there's a mystery here.
 - (d) Six year's rent seem to be unpaid.
 - (e) Were Webster or Clay ever President?
 - (f) Every man is the architect of their own fortune.
7. Write a sentence containing a predicate noun modified by an adjective of the superlative degree, and a predicate verb modified by a prepositional phrase.

8. Write—

- (a) A sentence containing the positive degree of the adverb *worst*.
- (b) A sentence containing *whom* as an interrogative.
- (c) A sentence containing *but* as a preposition.
- (d) A sentence containing a verb in the pluperfect indicative passive.
- (e) A sentence containing a noun in apposition with a noun in the objective.
- (f) A sentence containing a proper adjective.

9. "Thy throne is on the mountain-top;

Thy fields, the boundless *air*;

And hoary peaks, *that* proudly prop

The skies, thy *dwellings* are."

Parse the italicized words in the above.

10. Change the following simple sentences to complex:

- (a) The ancients believed the earth to be flat.
- (b) With perseverance and patience, you may yet succeed.
- (c) Having spent its rage, the wind went down.

Change the following complex sentences to simple ones:

- (a) Socrates proved that virtue is its own reward.
- (b) It is generally thought that the moon is not inhabited.
- (c) A tree is known by the fruit that it bears.

G E O G R A P H Y .

FIRST GRADE.

Nine Questions, Fifty Credits. One Question, Fifteen Credits. Seven Questions, Five Credits.

1. Draw a map of California, and locate five important cities, the five rivers, two prominent capes, three largest lakes. (15 credits.)

2. Name two important towns of Nevada, two high peaks of the Sierra Nevadas, four bays on the coast of California, and two rivers of California flowing directly into the ocean.

3. (a) How may the Gulf Stream be traced throughout its course?

(b) What is its average velocity?

(c) What happens to it when it reaches the British Islands?

(d) How is its effect upon atmosphere and climate in Western Europe visible to the eye?

(e) Where is it most rapid?

4. Give the latitude of Cape Horn, Philadelphia, City of Mexico, Calcutta, and the northern boundary of Nevada.

5. Give in order the words of which the following are definitions; answering in complete sentences:

(a) The path in which the earth revolves around the sun?

(b) The line in which the earth and sky seem to meet?

(c) Circles dividing the earth into two equal parts?

(d) The extremities of the earth's axis?

(e) Small circles parallel to the equator?

(f) (a) Locate the following countries: Equador, Spain, Abyssinia, Afghanistan, Gautemala.

(b) Of what countries are the following cities the capitals: Teheran, Lisbon, Cairo, Rio Janeiro, Edinburgh.

8. State one important article imported from each of the following: Brazil, Tahiti, Sandwich Islands, China, Spain, France, Mexico, Cuba, Alaska, Washington Territory. (Arrange in parallel columns.)

9. Name the largest city in each of the following countries: (In parallel columns.) England, Hindostan, United States, Turkey, Austria, Prussia, Spain, Russia. (4 credits.)

Give the population of two cities in your list. (1 credit.)

DRAWING.

FIRST GRADE (BOYS).

Scale $\frac{1}{4}$ of $1''=1'$. Construct any two polygons, one by the angle at the centre, the other by the angle at the circumference. The sides to be respectively three and four feet long. State the number of degrees contained in the angles used in the construction of the figures. (10 credits.)

Draw a simple scale $5''$ in length. (6 credits.)

Scale $\frac{1}{2}$ of $1''=1'$. Draw a triangle whose sides shall be respectively $3'$, $4'$, and $5'$ long, measure its angles with the protractor, and state the number of degrees in each. (4 credits. Time, 1 hour.)

Draw from the Free Hand Book No. 4, Ex. 111, enlarged to four inches in height. No ruling or measuring allowed. (10 credits. Time, 1 hour.)

Geometrical Books. (20 credits.)

FIRST GRADE (GIRLS.)

Construct a regular heptagon and a regular pentagon. (6 credits.)

Construct any triangle; measure its angles with the protractor, and state the number of degrees contained in each. (6 credits.)

Construct an equilateral triangle and divide two of its sides, the one into 7, and the other into 9 equal parts by geometrical rule. (4 credits. Time, 45 minutes.)

Draw from the Free Hand Book No. 4, Ex. 111, enlarged to 4 inches in height. No ruling or measuring allowed. (10 credits.)

Mention some things which should be avoided in making designs. (4 credits. Time, 1 hour and 15 minutes.)

Free Hand Books. (20 credits.)

SECOND GRADES.

Mention some things which should be avoided in making designs. (4 credits.)

Give an illustration of symmetrical work upon an oblique axis. (6 credits.)

Construct a square and divide two of its sides, the one into five and the other into seven equal parts, by geometrical rule. (4 credits.)

Construct an octagon. (3 credits.)

Construct an equilateral triangle, and upon each of its sides construct another. (3 credits. Time, 1 hour.)

Enlarge and complete Ex. 67, Free Hand Book No. 3. (10 credits. Time, 1 hour.)

Free Hand Books. (20 credits.)

THIRD GRADE.

Bisect an angle. (2 credits.)

Trisect a right angle. (2 credits.)

Construct an equilateral triangle. (2 credits.)

Make an angle and make another equal to it. (2 credits.)

Make an oblique line perpendicular to another. (2 credits.)

How many diameters can there be to a circle? (2 credits.)

Make a curved line concave to a horizontal line. (2 credits. Time, 1 hour.)

Make a drawing from memory of any specimen brought in during the term. (11 credits. Time, 1 hour.)

Free Hand Books. (15 credits.)

Geometrical Books. (10 credits.)

FOURTH GRADE.

Draw simple symmetrical curves upon an axis. (2 credits.)

Draw a compound curve. (2 credits.)

Make a horizontal line perpendicular to a vertical line. (2 credits.)

A wheel represents a circle; what name would you give to the spokes and tire? (2 credits.)

What would be the name of the space enclosed by two spokes and part of the tire? (2 credits.)

How many diameters can there be in a circle? (2 credits. Time 1 hour.)

Draw from memory any specimen brought in during the term. (13 credits. Time 1 hour.)

Free Hand Books. (25 credits.)

FIFTH GRADE.

Draw a quadrant and state how many degrees it contains. (2 credits.)

What is the name of the shape of a lead pencil which has never been cut? (2 credits.)

What name would you give to the pointed end of a lead pencil? (2 credits.)

What is the name of the shape of a pane of glass (in the window?) (2 credits.)

When is one line said to be perpendicular to another? (2 credits. Time 1 hour.)

Draw from memory any specimen brought in during the term. (15 credits. Time 1 hour.)

Intermediate Drawing Books. (25 credits.)

SIXTH GRADE.

How many names can you give to a piece of pie the same size as one-fourth? (3 credits.)

What is the name of the angle in one-fourth of a pie? how many degrees does it contain? (3 credits.)

How many angles are there in six panes of glass (in the window), and what are their names? (4 credits.)

What is the name of the shape of the outside of the clock, and what name can you give to the shape of the outer edge of the brass ring around the dial? Omit this if there is not a clock in the room and substitute the following: (4 credits.)

What geometrical figure does an apple or an orange resemble? (4 credits.)

Draw from memory any specimen brought in during the term. (11 credits.)

Drawing Books. (25 credits.)

SEVENTH GRADE.

Draw upon your slates vertical, horizontal and oblique lines.

Draw a triangle, a square with its diameters and diagonals, and an oblong.

Draw right, acute and obtuse angles.

Tell what a triangle is, a square, an oblong.

Tell what diameters and diagonals are.

Draw any little pattern you can think of upon your slates.

EIGHTH GRADE.

Draw vertical, horizontal and oblique lines upon slates or blackboard.

Draw right, acute and obtuse angles.

Draw a triangle, square and oblong.

Draw any little pattern you can think of upon your slates.

No credits given to the Seventh or Eighth Grades. Principals are requested to see that the examinations are properly carried out in the lower grades.

Special teachers of drawing to credit the work of First and Second Grades. Regular teachers to credit the work of all grades below the Second, according to the suggestions of the Principals.

Specimens drawn either in drawing books or upon paper supplied by the teacher of the class.

ARITHMETIC.

FIFTH GRADE.

Eight Questions, Ten Credits Each.

1. $8271 \div 24 = ?$ $32,009 \div 152 = ?$

2. Find the sum of $\frac{2}{3}$ of 36, $\frac{3}{4}$ of 99, $\frac{5}{7}$ of 63, $\frac{7}{10}$ of 70, $\frac{4}{5}$ of 40, $\frac{5}{6}$ of 72, $\frac{3}{8}$ of 64, and $\frac{5}{6}$ of 30.

3. Find the cost of 112 lbs. sugar, at 18 cents a pound; 125 lbs. potatoes, at 3 cents a pound; 700 lbs. flour, at 3 cents a pound; 3 dozen cans fruit, at 25 cents a can; 12 dozen eggs, at 50 cents a dozen; 40 lbs. codfish, at 11 cents a pound; and 24 yards of muslin, at 18 cents a yard. Write out the bill.

4. $\frac{1}{2} - \frac{3}{4} = ?$ $\frac{6}{3} + \frac{8}{3} + \frac{2}{3} + \frac{6}{3} = ?$ $7\frac{8}{9} =$ how many ninths? $12\frac{2}{3} =$ how many fifths? $24\frac{8}{11} =$ how many elevenths?

5. $8,207 \times 29 = ?$ $736 \times 84 = ?$

6. If 17 lbs. of sugar cost \$1.87, what will 54 lbs. cost?

7. If a man buys a house for \$250, and gives in part payment two horses worth \$75 each, a cow worth \$60, and pigs and chickens to the value of \$25, how much cash did he pay?

8. $\frac{75}{8}=?$ $1\frac{7}{7}=?$ $2\frac{3}{10}=?$ $3\frac{1}{9}=?$ $4\frac{2}{4}=?$

GRAMMAR.

FIFTH GRADE.

Six Questions, Ten Credits Each.

1. Give the meanings of the following abbreviations:
M. D.—A. M.—A. D.—N. B.—C. O. D.—D. C.—M. C.—R. R.—R. I.—B. C.
2. 1. Write a descriptive adjective. 2. An adverb. 3. A proper adjective. 4. A transitive verb. 5. An intransitive verb.
3. Correct in the errors in the use of *capitals*, the *period*, etc.:
(a) Last tuesday i went to church with p. jones esq.
(b) gen israel putnam was a brave man.
(c) prof morse Invented the telegraph.
Correct the errors in the following:
(d) Has the boys went away yet?
(e) Me and him seen that boy run away.
4. Write five *root-nouns* and five *suffixes*.
5. Write five separate sentences about the elephant.
6. What part of speech is each of the italicized words in the following sentences?
(a) *Who comes there?*
(b) *The time passes rapidly.*
(c) *The Spanish troops retreated.*
(d) *In 1802, Ohio was admitted into the Union.*
(e) *You and I know all about it.*

GEOGRAPHY.

FIFTH GRADE.

1. (a) Name three lakes of California, and tell in what part of the State each is located.
(b) Name two peaks of the Sierra Nevada.

2. Name ten large cities of the United States, with their locality.
3. What State lies north of California? What are the two largest rivers of the State?
What river separates Oregon from California?
Which is the largest bay indenting the coast of North America?
Name a peninsula lying south of this State?
4. Name three great valleys of California.
Two localities noted for their fine scenery.
5. Where are the Farallone Islands?
Cape Mendocino?
Mount Tamalpais?
New Almaden?
Los Angeles?

SPELLING.

FIFTH GRADE.

Sixty Words, One Credit Each.

Bustling,	Raisins,	Gypsies,
Knowledge,	Oranges,	Egyptians,
Replied,	Relieve,	Languages,
Unrestrained,	Porringer,	Drowned,
Carriage,	Breakfast,	Grecian,
Nephew,	Obedient,	Buildings,
Twitched,	Squatted,	Whatsoever,
Exclaimed,	Morsel,	Neighbors,
Balloon,	Earliest,	Bargaining,
Slackened,	Potatoes,	Scarcely,
Plagued,	Pilfers,	Hurried,
Disappointments,	Honesty,	Balanced,
Succeeded,	Satisfied,	Prettily,
Persuaded,	Naughtiness,	Furnace,
Dialogue,	Holiday,	Gallon,
Pieces,	Cousins,	Melon,
Bowsprit,	Impatience,	Purchase,
Buoy,	Spectacles,	Clumsiness,
Muslins,	Grievous,	Medicine,
Bananas,	Disconsolate,	Juiciness.

SPECIAL EXAMINATION OF FIRST GRADES IN SECOND GRADE WORK.

ARITHMETIC.

Seven Questions, Five Credits Each.

1. Reduce 5 tons, 17 cwt., 16 lbs., 6 oz., to ounces, and prove by reduction.
2. Reduce to common fractions in their lowest terms—.87, .0088, .1234, .00330, .000072.
3. Add $\frac{5}{9}$ $\frac{6}{8}$ $\frac{2}{3}$ $\frac{1}{2}$ $\frac{3}{4}$ $\frac{5}{6}$ and $\frac{4}{8}$.
4. Prime factors of 81, 91, 87, 98, 78, 62, 36, 42, 54, 51. NOTE—Give these out singly and allow one minute and a half to write the prime factors of each.
5. (a) $7\frac{1}{2} \div \frac{2}{3} = ?$ (b) $5\frac{3}{4} \times \frac{3}{4} = ?$ (c) $6\frac{3}{8} \div \frac{6}{8} = ?$ (d) $2\frac{1}{2} - 1\frac{3}{4} = ?$ $460\frac{1}{2} - \frac{6}{8} = ?$
6. Amount of \$725.90@9 % per year for 2y. 5m. 16d.
7. Solve the following bill in U. S. money:

81 oxen at.....	\$62 $\frac{1}{4}$ each.
75 cows at.....	42 $\frac{1}{2}$ each.
111 sheep at.....	3 $\frac{1}{3}$ each.
581 hogs at....	2 $\frac{1}{2}$ each.
49 geese at.....	1 $\frac{1}{2}$ each.
618 chickens at.....	73 cts. each.
5 bbls. flour at....	5.93 each.

G R A M M A R .

Seven Questions, Five Credits Each.

1. Write the following verbs in the six tenses of the indicative mood, using the pronoun *I* for the subject: Go, bring, know, love, write. Arrange in tabular form.
2. State five ways in which a *noun* may be used.
3. Define: A *phrase*, a *verb*, an *adverb*, a *noun*, an *adjective*.
4. Write in tabular form the principal parts of the following verbs: break, sit, see, fly, flee, lay, lie, come, give, go.
5. Write a sentence containing a noun in apposition with the subject and modified by a prepositional phrase. (5 or 0.)

6. Write, in tabular form, two relative pronouns, two prepositions, two irregular verbs, two intransitive verbs, and two adjectives in the comparative degree.

7. Write a sentence containing a transitive verb, a conjunction, a pronoun used as the subject, and a proper noun modified by an adjective. (5 or 0.)

G E O G R A P H Y .

Thirty Questions, One Credit Each.

NOTE.—Sum up the Credits carefully, and take the nearest integral per cent. for the result.

Pupils will fill up the blank spaces in each question.

1. The average increase of temperature below the surface of the earth is one degree for every.....feet.
2. Rocks formed by the agency of water are called.....
3. Those formed by the agency of fire are called
4. Rocks lying in regular layers are called.....
5. The principal sections of the mountain system in Asia are the.....
.....and.....
6. The chief mountain ranges in Europe are the.....,
....., and.....
7. The principal ranges in North America are the.....and
.....
8. The longest straight line that can be drawn on the land surface of the earth would extend from.....to.....,
.....miles, in a.....direction.
9. The loftiest peak on the globe is Mt.,feet high.
10. The highest in South America is Mt.
11. The most elevated plateaus in the world are in.....
12. The highest plateaus in North America are in.....
13. The average height of the Alps isfeet.
14.is a city in South America, 12,000 feet above the sea-level.
15. The highest point of North America is Mt.,feet high.
16. Four noted volcanoes of the world are....., in.....;
....., in.....;, in.....;, in.....
17. Two great earthquakes of which we have a record are that of.....
in the year....., and.....in.....
18. The plains of the Orinoco are termed.....; those of the La Plata,
19. The most eastern cape of South America is Cape.....; the most western is Cape.....

20. The most western cape of Africa is Cape.; the most eastern is Cape ...
21. The great river of China is the; of South America is the; of North America is the; and a great river of northern Asia is the
22. Name the following islands:
 The island east of southern Africa.....
 “ “ south of Australia.....
 “ “ north of Australia.....
 “ “ south of Hindostan.....
23. The strait leading into the Mediterranean is; that between Terra del Fuego and South America is; that between Asia and North America is The cape on the northwestern point of Washington Territory is Cape
24. The four great lakes between which the boundary passes between the United States and British America, are.....,,and.....
25. Mt. Washington is in the State of.....
 “ Katahdin “ “ “
 “ Tamalpais “ “ “
 Lake Champlain is west of the State of.....
26. The chief city of Louisiana is....., of Illinois is....., of Missouri is....., of Nevada is.....
27. The Ohio River is formed by the union of the.....and....., the Columbia by the union of the and.....
28. Four large tributaries of the Mississippi River are.....,,and.....
29. Four rivers of the United States flowing into the Atlantic are.....,and.....
30. Four of the West Indies are.....,and.....

SPECIAL EXAMINATION, SEPTEMBER, 1877.

ARITHMETIC.

SECOND GRADE. (IN THIRD GRADE WORK.)

Seven Questions, Five Credits Each.

Each question to be marked 5 or 0, except where there are five distinct parts, when partial credits must be given, and excepting also the fourth and seventh questions.

1. State—(a) What numbers are divisible by 4; (b) by 3; (c) by 9; (d) by 6; (e) by 5.
2. Reduce $7\frac{1}{2}$ to eighths; $5\frac{2}{3}$ to twelfths; $1\frac{7}{8}$ to thirty-seconds; $12\frac{1}{2}$ to fifteenths; $8\frac{5}{6}$ to twenty-sevenths.

3. Solve the following: $\frac{4}{5} \times \frac{1}{2} \times \frac{1}{2} \times \frac{5}{6} - \frac{3}{5} - \frac{7}{6} \times \frac{1}{4} = ?$
4. Find the sum and the product of .04, .111, .0002, and 2.32. (3 or 5.)
5. Reduce 4 miles, 6 furlongs, 23 rods, 2 yards, 1 foot, 10 inches, and prove by reduction, ascending.
6. Find amount of \$252.25 for 2 years, 7 months, 20 days, at 9 per cent. a year.
7. (a) $\frac{1}{2} \div \frac{2}{3} = ?$ (b) $\frac{4}{5} \times \frac{1}{11} = ?$ (c) $2\frac{1}{2} - 1\frac{2}{3} = ?$ (d) $6\frac{2}{3} \times \frac{4}{7} = ?$ (e) $\frac{4}{5} \times \frac{5}{7} = ?$
 (f) How many square yards make one square rod? (g) How many degrees make one circle? (h) How many inches in a yard? (i) How many cubic feet in a cord of wood? (j) How many pounds make one hundred weight?

GRAMMAR.

SECOND GRADE. (IN THIRD GRADE WORK.)

Seven Questions, Five Credits Each.

1. What do you mean by the subject and the predicate of a sentence?
2. Define nouns and adjectives, and give the adjective form of the following proper nouns: Sweden, Holland, Japan.
3. Give the plurals of calf, roof, hero, wife, thief.
4. Write a sentence in which the word "rush" is a noun; one in which the word "roof" is a verb; one where "ship" is a verb; one where "tax" is a noun; one where "box" is a verb.
5. State the use of the letter *s* as applied to the inflection of nouns and that of verbs.
6. Define a verb (1 credit); give the rule of agreement for verbs (2 credits); write a sentence containing a proper adjective in the superlative degree (2 credits).
7. Compare the adjectives bad, good, little, many, and much.

GEOGRAPHY.

SECOND GRADE. (IN THIRD GRADE WORK.)

Thirty Questions, One Credit Each.

NOTE.—Sum up the credits carefully and take the nearest integral per cent. for the result. If a geographical name is wrongly spelled, give no credits; but where there are different ways of spelling a word, allow either. Pupils will fill up the blank spaces. To encourage carefulness in writing, one extra credit will be allowed for neatness. Where this is given, indicate it on the paper.

1. Name the capitals of the following countries: Spain,; France,; Russia,; German Empire.....

2. is an island south of Greece. The..... islands lie north of Scotland.
3. The Adriatic Sea is called the... The..... is the largest river flowing through Austria.
4. The..... mountains separate France from Spain. The..... mountains divide Norway from Sweden. The..... mountains are between Europe and Asia. The..... mountains are in Turkey in Europe.
5. Mt. Hecla is in.....; Mt. Ætna, in; Mt. Vesuvius, in.....; and Cape Clear is on the south-western coast of.....
6. A country of Europe noted for its grand and beautiful scenery is; one famous for the immense amount of its manufactures is.....
7. Barcelona is in....., Glasgow is in....., Geneva is in , Liverpool is in.....
8. The..... Sea lies between China and Corea. The..... Sea is entirely surrounded with land and lies between Europe and Asia. The Sea is west of Hindostan. The Gulf is east of Arabia.
9. Two important productions of the West Indies are and
10. Four important cities of the United States, not capitals, are:....., in.....; , in.....; , in.....
11. Two Territories of the United States are.....and.....
12. Calcutta is the capital of.....; Teheran, of.....
13. The Strait of.....leads into the Red Sea; the Strait of..... into the Persian Gulf.
14. Four races of men are the..... , , , and.....
15. Four prominent capes of Africa are: C. on the north, C. on the east, C. on the south, and C. on the west.
16. Four great rivers of Africa are the in the north, the..... in the south-east, the..... in the west, and the..... in the south.
17. Four important groups of islands in Oceanica are....., , , and.....
18. Australia belongs to the..... Government, Alaska to....., Cuba to....., and Vancouver Island to.....
19. The lines running east and west on the maps are called , those running north and south are called..... Distance north or south of the equator is.....; distance east or west of a given meridian,

20. The length of California, north-west to south-east, is..... miles. Its average breadth, miles.
21. Four important lakes in California are:,,, and.....
22. Four prominent mountain peaks in California are:,, and.....
23. Four important rivers in California are:,,, and.....
24. The north-western county in California is; the most southern is.....
25. Four great vegetable products in California are:,,, and.....
26. Four mineral products in California are:,,, and.....
27. The county lying due north of our own county is....., that due south is.....; Oakland is in..... county; and San José is in..... county.
28. Two localities in California noted for grandeur of scenery are..... and.....
29. The..... islands lie 23 miles outside the Golden Gate. Bay and..... Bay are continuations of San Francisco Bay, and Bay is the best harbor in the southern part of the State.
30. The great mineral product of Nevada is..... The principal city of Oregon is.....

ARITHMETIC.

THIRD GRADE. (IN FOURTH GRADE WORK.)

Seven Questions, Five Credits Each. (Each question five or zero, except where otherwise indicated.)

1. H. Boone paid Simon Drake sixteen dollars and a half on the second of last June, in this city. It was all he owed him. Write a receipt in proper form.
2. $\frac{2}{3} + \frac{2}{3} + \frac{1}{3} + \frac{9}{10} + \frac{1}{2} + \frac{7}{6} + \frac{5}{6} + \frac{7}{12} = ?$
3. $\frac{2}{3} - \frac{1}{4} = ?$ $\frac{1}{5} - \frac{2}{3} = ?$ $\frac{1}{2} - \frac{1}{8} = ?$
4. $72.00288 \div 1.2 = ?$
 $7\frac{2}{3} \times 6 = ?$ $4\frac{2}{3} \times 1\frac{0}{1} = ?$
5. I borrowed \$550 on January 15th, 1876, on interest at one per cent. a month. I settle up on June 30, 1877. How much did I pay in all?

6. Find the cost of the following:

118 lbs. sugar @ $12\frac{1}{2}$ cts. per lb.

52 lbs. coffee 27 cts. per lb.

8 lbs. tea \$1.25 cts. per lb.

2 saddles 12.75 cts. a piece.

1 stove 15.00

1,141 lbs. bran $1\frac{3}{4}$ cts. per lb.

7. In $2\frac{1}{2}$ how many sixths? In $4\frac{2}{3}$ how many twelfths? In $\frac{7}{8}$ how many fourteenths? In $12\frac{1}{2}$ how many twenty-fifths? In $9\frac{5}{6}$ how many sixteenths?

GRAMMAR.

THIRD GRADE. (IN FOURTH GRADE WORK.)

Seven Questions, Five Credits Each.

1. Write the plurals of *donkey*, *half*, *chief*, *thief* and *lily*.
2. (a) Write a sentence containing the possessive plural of *woman*. (b) One containing the possessive singular of a fox. (c) Compare *good*, *bad*, *far*.
3. Give the past of the following verbs: *go*, *call*, *see*, *find*, *began*. State which of these are regular and which irregular.
4. (a) What is a simple sentence?
(b) What is the subject?
(c) What is the predicate?
(d) How is the *present* participle regularly formed?
(e) The *past* participle?
5. Write a sentence containing a proper noun and a verb in the past tense.
6. What difference is there in the use of the letter *s* as joined to *nouns* and to *verbs*?
7. Give the *subject* form, the *object* form, and the *adjective* form of *I*, *you*, *she*, *he*, *they*.

GEOGRAPHY.

THIRD GRADE. (IN FOURTH GRADE WORK.)

Thirty Questions, One Credit Each.

NOTE.—Let the pupil fill up the blank spaces. Sum up carefully and take the nearest integral per cent. Give no credits for misspelled words.

1. A fertile place in a desert is called an..... An elevated plain is called a.....

2. The land embraced by the several mouths of a river is called a.....
The tract of country drained by a river is called theof the river.
3. Four great lakes lying between Canada and the United States are.....,
.....and.....
4.is a State which borders on four of the great lakes.
is a State lying east of Lake Champlain.
5.is a large island south of Florida.is a bay
partly in Virginia and partly in Maryland.
6. The.....river empties into the Colorado near the head of the
Gulf of California.
7. is a large city in Maryland.is a city in Wisconsin.
.....is a cape at the mouth of Chesapeake Bay.is a
lake in Utah.
8. Two capes on the coast of California areand.....
9. is the capital of Texas,of Oregon,of
Colorado, and.....of Ohio.
10. The Columbia river is formed by the union of the.....and.....
11. The first two battles of the Revolution were.....and
12. The highest officer in our country is the.....; in the State is the
.....; in the city is the.....; and our country has a.....
form of government.
13. Congress is composed of.....and.....
14. Two noted Generals in the Mexican War were.....and.....
15. That one of the great lakes between the U. S. and British America,
which has the highest elevation above the sea level is..... That which
has the lowest level is.....
16. Lake.....is in Maine. The..... mountains are in New
Hampshire.
17. Four great rivers of New England are the,,
and
18. Four cities of New England, not capitals, are.... .,,,
.....and.....
19.is a peninsula in the eastern part of Massachusetts.
is a bay in the eastern part of Rhode Island.
20.is called the "Granite State."has more
good harbors than any other State.
21. Two important cities of New York besides the capital, are.....
and
22. The direction of the Niagara river is.....; that of the St. Lawrence
river is.....
23. Philadelphia is at the junction of the.....andrivers.
24. New York was settled by the.....; Pennsylvania by the.....
25. The..... river separates Georgia from South Carolina. The
.....separates Mississippi from Louisiana.

26. Four large cities, not capitals, in the Southern States, are.....,and.....
27.is a State which formerly belonged to Mexico. was purchased from the French. was bought from Spain. The city of.....was founded in 1565 by the Spaniards.
28.is a State lying north of Iowa.is the capital of Indiana.is the country lying north of Minnesota. is the lake north of Wisconsin.
29. Four mountain peaks of California are.....,,and.....
30. Four counties lying on the Bay of San Francisco are.....,,and.....

ARITHMETIC.

FOURTH GRADE. (IN FIFTH GRADE WORK.)

Seven Questions, Five Credits Each.

1. $\frac{5}{12} + \frac{1}{12} + \frac{3}{12} + \frac{7}{12} - \frac{4}{12} - \frac{2}{12} - \frac{1}{12} = ?$ (5 or 0).
2. $7\frac{5}{12}$ = how many twelfths? $18\frac{2}{3}$ = how many thirds? $1\frac{4}{5}$ = how many fifteenths? $2\frac{7}{8}$ = how many eighths? $4\frac{3}{11}$ = how many elevenths?
3. Divide 420,163 by 271 and prove by multiplication.
4. Find the cost of the following:

72 lbs. flour	at 4 cts. per lb.	
286 lbs. potatoes	at 2 cts. per lb.	
96 lbs. sugar	at 23 cts. per lb.	
15 doz. brooms	at \$11.24 per doz.	
56 lbs. pork	at 12 cts. per lb.	— (5 or 0).
5. $8,274 + 329 + 11,106 + 382 - 729 - 481 = ?$ (5 or 0).
6. Add together, $\frac{1}{7}$ of 49, $\frac{1}{8}$ of 64, $\frac{1}{11}$ of 121, $\frac{1}{3}$ of 48, $\frac{4}{5}$ of 25, and $\frac{2}{10}$ of 70. (5 or 0).
7. What is the sum of $\frac{1}{2}$ and $\frac{2}{3}$? $\frac{3}{4}$ and $\frac{2}{3}$? $\frac{2}{4}$ and $\frac{1}{6}$? What is the difference of $\frac{1}{2}$ and $\frac{1}{3}$? $\frac{2}{3}$ and $\frac{1}{6}$?

GRAMMAR.

FOURTH GRADE. (IN FIFTH GRADE WORK.)

Seven Questions, One Credit Each.

1. What is a noun? A proper noun? Give three proper nouns.
 2. What is a word in its simplest form called? What is a syllable added to a word to make another called? Give three such syllables, with their meaning.
 3. Explain the following abbreviations: M. C., B. C., A. D., P. M., P. S.
 4. What are verbs? What does a transitive verb require to complete the sense? Give two transitive verbs and one intransitive verb.
 5. Name two kinds of adjectives, with examples of each. Name three suffixes which, added to nouns or verbs, will form adjectives.
 6. Write a sentence containing a noun, a verb, a proper adjective, an adverb and a personal pronoun.
 7. Name two adjective pronouns, and write a sentence containing an intransitive verb.
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GEOGRAPHY.

FOURTH GRADE. (IN FIFTH GRADE WORK.)

Thirty Questions, One Credit Each.

NOTE.—No credits for misspelled names. Pupils will fill up the blank spaces. One extra credit may be allowed for neatness. Sum up the credits and take the nearest integral per cent.

1. A neck of land joining two larger bodies of land is an
An elevated plain is a
2. A sea containing a large number of islands is called an
A shallow channel is called a
3. The tract of country drained by a river is called the of the river.
4. The land embraced by the several mouths of a river is called a ..
The chief city of a country is called the
5. The lines that run from north to south on a map are,
and those which run from east to west are
6. Bay is west of Greenland. The
mountains are in the western part of South America.
7. The most northern cape of South America is C; the most
eastern, C; the most southern, C; and the most
western, C

8. Two large rivers of North America are the.....and the.....
9. Two large rivers of South America are the.....and the.....
10. The largest lake in North America is L.....
11. The Strait of.....leads out of the Mediterranean Sea into the Atlantic Ocean.
12. The.....is a large river in Asia; the.....is a river in Africa.
13. The Cape of.....is in the south of Africa; C.....is on the coast of California.
14. The largest of the West India Islands is.....
15. The.....river is the outlet of the great lakes north of the United States.
16. The Gulf of.... is on the west of Mexico.
17. America was discovered in the year....., by
18. Three European nations which made settlements in America were the, the....., and the..... conquered Mexico in 1522.
19. is an island lying east of the Gulf of St. Lawrence.
20. The length of California, from north to south, ismiles. Its average breadth ismiles.
21. The two great rivers of California are the.....and
22. Two lakes of California are L.....and L.....
23. Two mountain peaks of California are Mt.... and Mt.....
24. Oakland is in.....county; San Rafael is in..... county.
25. The principal city of Nevada is.....
26. In going to the State of Nevada we must cross the..... mountains.
27. Two islands in the Bay of San Francisco are.....and.....
28. The State of.....bounds California on the north, and the State ofon the east.
29. Four agricultural products of this State are.....,,, and.....
30. Los Angeles is in the.... part of the State; Marysville in thepart.

QUESTIONS USED IN THE ANNUAL EXAMINATION OF THE GIRLS' HIGH SCHOOL.

LITERATURE.

JUNIOR CLASSES, 1877.

When A and B are given, select one of the two; in all other cases take the entire question.

NOTE FOR TEACHER.—No explanations or instructions whatever to be given by the examining teachers.

All papers with the questions to be sent to the Principal's office.

NOTE FOR PUPILS.—At the head of the paper, write your name, the name of your regular teacher, and the grade of your class. Write legibly, and *punctuate*.

CREDITS.—Credit on a scale of 100, and divide the result by 2. Standard 50.

1. I. Name five of Dickens' works, and underline the one you like best.
 II. What are the most marked characteristics of Dickens' style?
 III. "Old Marley was as dead as a door-nail." From what book?
Parse door-nail.
2. I. Write a quotation of not less than four lines from Byron; from Burns.
 II. What marked contrast in the poetry of the two?
3. (a) Who was Daniel Webster, and what did he write?
 (b) What is Hawthorne's rank? What did he write? And what of his English?
4. I. *Longfellow*. Where born, and in what year?
 II. Name his three best works.
 III. Quote a stanza from him, and tell from what poem.
5. (a) Give an example of a simile from Longfellow. A metaphor from Byron, and one from Whittier.
 (b) Give a quotation from Shakspeare, one from Scott, one from Tyndall.
6. (a) I. For what is Bret Harte distinguished?
 II. What has he written?
 III. Quote a stanza of at least four lines.
 (b) I. What has "Mark Twain" written, and for what is he noted?
 II. Quote a saying of his.
7. (a) For what are Poe's poems remarkable?
 (b) Name three books written by James Parton.
8. (a) State the names of five poems by O. W. Holmes, and of two novels by him.

- (b) Why does Huxley advocate the introduction of science into schools?
9. "When my eyes shall be turned to behold for the last time the sun in heaven, may they not see him shining on the broken and dishonored fragments of a once glorious union."—*Webster*.
- I. What kind of a sentence?
 - II. *When my eyes, etc.*—What is it, and what does it modify?
 - III. Parse *shining* and *once*.
 - IV. Word analysis of *dishonored* and *behold*.
 - V. Why a comma after *heaven*?
10. "The day is done, and the darkness
Falls from the wings of night,
As a feather is wafted downward
From an eagle in his fight."
- I. What kind of a sentence, and why?
 - II. What part of the sentence are the last two lines?
 - III. Parse *as*; *downward*.
 - IV. What figure of speech in the second line?
 - V. In the third line what figure?

MIDDLE CLASSES.

1. (a) Name five British poets in order of rank, and give a prominent work of each.
(b) What can you say of Scott as a novelist?
2. What has Macaulay written, and what are his characteristics?
3. Classify Tyndall, Black, Miss Muloch, Mrs. Browning, and George Eliot. Name a work of each.
4. Contrast, in brief, Dickens with George Eliot.
5. (a) Sketch of Thackeray.
(b) How does Thackeray compare with Dickens?
6. What have Tyndall and Spencer written? What are the characteristics of their style?
7. What do the novels of Dickens teach? Name five of his novels, and state the main purpose of each.
8. How do Charlotte Brontë and Miss Muloch compare in rank? Which do you prefer, and why?
9. "Marley was dead, to begin with; there is no doubt whatever about that."—*Dickens*.
Construction of—to begin with, there, whatever, that. What per cent. of the words are of Teutonic origin?

10. "A crow who had flown away with a cheese from a dairy window sat perched on a tree, looking down on a great big frog in a pool underneath him."—*Thackeray*.

- (a) What per cent. of the words are of Teutonic origin? Of Romanic?
- (b) Analyze the sentence?
- (c) Parse: perched, down, underneath.

1. (a) Into what three periods would you divide the history of American literature?
- (b) What was the first book printed in America, and the year of its publication?
2. (a) Who was Jonathan Edwards, and what books did he write?
- (b) What influence has Harvard College had on our literature?
3. (a) Name two influences that have affected our literature in modern times.
- (b) What educational influence have works of fiction?
4. (a) Give a quotation from each: 1—Shakespeare. 2—Byron. 3—Tennyson. 4—Mrs. Browning. 5—Daniel Webster.
- (b) State at least three reasons why Shakespeare should be read and studied.
5. (a) Mention five of Shakespeare's dramas, and name a character in each.
- (b) Classify: 1—Webster. 2—Byron. 3—Everett. 4—Dickens. 5—Whipple. 6—Tennyson. 7—Curtis. 8—Howell. 9—Emerson. 10—Miss Alcott.
6. Dickens:
 - I. What kind of words does he use?
 - II. What about the structure of his sentences?
 - III. For what qualities is he particularly noted?
 - IV. Which of his works made him famous?
7. "Marley was dead, to begin with; there is no doubt whatever about that."—*Dickens*.
Construction of: 1—To begin with. 2—There. 3—Whatever. 4—That. 5—Strike out there, and recast the sentence.
8. (a) What are evils of excessive novel reading?
- (b) Which is the higher order of writing—good prose or good poetry?
9. Had the Plantagenets, as at one time seemed likely, succeeded in uniting all France under their government, it is probable that England would never have had an independent existence. The noble language of Milton and Burke would have remained a rustic dialect without a literature, a fixed grammar, or a fixed orthography, and would have been contemptuously abandoned

to the use of boors. No man of English extraction would have risen to eminence, except by becoming, in speech and habits, a Frenchman.—*Macaulay*.

- I. How many words in this paragraph?
- II. Count up those that you think are of Teutonic or Anglo-Saxon origin.
- III. Those of Romanic and of Greek derivation.
- IV. Derivation of *rustic*, and its root meaning; of *orthography*; of *extraction*.
- V. Mood of *had succeeded*; parse *uniting*; parse *seemed*.

10. "When the wolf in the sheep's clothing heard the bellow of the ass in the lion's skin, fancying that the monarch of the forest was near, he ran away as fast as his disguise would let him."—*Thackeray*.

- I. What per cent. of these words is Teutonic or Anglo-Saxon?
- II. Analyze the sentence.
- III. Parse *fancying*, *near*, *as*, before *his*.

Select one of each pair of questions. 100 Credits.

1. (a) Outline, in brief, the life of Dickens; not to exceed fifteen lines.
(b) What are the most striking characteristics of Dickens as a novelist?
2. (a) What kind of words does Dickens incline to use? What of the structure of his sentences?
(b) In what books do you find the following characters: 1. Dick Swiveller. 2. Sairy Gamp. 3. Sam Weller. 4. Uriah Heep. 5. Squiers. 6. Little Nell. 7. Scrooge. 8. Agnes. 9. Mrs. Bardell. 10. Picksniff?
3. (a) Name three noted English women novelists in the order you would rank them, and mention a work by each.
(b) The same of three American women.
4. (a) Classify as writers: 1. Macaulay. 2. Tyndall. 3. Herbert Spencer. 4. Scott. 5. George Eliot.
(b) Ditto: 1. G. W. Curtis. 2. Cooper. 3. Holland. 4. Emerson. 5. Poe.
5. (a) Who wrote: 1. Locksley Hall. 2. Prue and I. 3. Adam Bede. 4. Jane Eyre. 5. Little Women.
(b) Among the authors studied, name two prominent as editors, and tell with what publications they are connected.
6. (a) With what poet would you contrast Poe, and why? Illustrate by a quotation from each.
(b) Compare Tennyson's poem, "The Poet," with that of Bayanti on the same subject.
7. (a) Sketch the life of Tennyson in ten lines.
(b) Why do you like Tennyson's poetry? Give three quotations remarkable for something.

8. (a) Outline the story in brief, of one of Tennyson's Idyls.
(b) Give three quotations from Emerson, and mention the essay you like best.
9. (a) Name 10 English authors and classify them.
(b) Ditto American.
10. (a) What benefits have you derived from the study of literature?
(b) What is your notion of the relative merits of the old English writers as compared with those of the 19th century?

EXTRAS.

1. Name three leading historical works written by California authors.
 2. What editor and what professor in California are ranked as poets?
 3. What two women in California write good verses?
 4. What Californian is the author of—
 - (a) A History of California.
 - (b) The Argonauts.
 - (c) The Hermitage.
 - (d) Resources of California.
 - (e) Annals of San Francisco.
 5. Name one woman in California well known as a lecturer, writer and educator.
-

1. (a) What rank does Shakspeare hold in Literature, and why?
(b) I. Name the plays that you have heard and seen acted.
II. That you have read.
III. The one you like best and why.
2. (a) Who is considered the greatest of American novelists, and why?
(b) I. What books of his have you read?
II. Which do you like best, and why?
III. What are the leading characteristics of his style?
3. Classify and name a work by each—
 - (a) Bret Harte.
 - (b) Franklin.
 - (c) Webster.
 - (d) Hale.
 - (e) Parker.
4. (a) Who is Howells, and how does he rank?
(b) What of his writings have you read, and why do you like it or dislike it?
5. (a) How do you rank Whittier among American poets? Character-
istics of his poetry?
(b) Who is O. W. Holmes, and what has he written?

6. (a) Which do you prefer, Burns or Byron, and why?
(b) Give two quotations from each.
7. Write a short opinion about some novel that you have read by any one of the following authors: 1—Dickens. 2—Geo. Eliot. 3—Thackeray. 4—Hawthorne.
8. (a) What is the educational influence of the modern novel?
(b) What novels that you have read had most influenced you for good?
9. (a) "Out of this nettle Danger
We pluck the flower Safety."
(b) "Assume a virtue if you have it not."
(c) "It is an honor that I dreamt not of."
(d) "O, how wretched is that poor man
That hangs on princes' favors!"
I. Figure of speech in *a*.
II. What kind of a sentence is *a*, *b*, *d*?
III. Parse "that" in *c*.
IV. Recast *d* into a declarative sentence.
10. I. How many words in the four preceding quotations?
II. How many of them are of Teutonic or of Anglo-Saxon origin?
III. How many of Romanic or Greek?
IV. In general, what kind of words does Shakespeare use most?

AMERICAN LITERATURE.

MIDDLE CLASSES.

100 Credits.

Select either *a* or *b* from each question.


1. (a) Name: 1—Three novelists. 2—Three essayists. 3—Two historians. 4—One philosopher. Mention the chief work of each.
(b) Who wrote: 1—Reveries of a Bachelor. 2—The House of Seven Gables. 3—Life of Columbus. 4—Elsie Venner. 5—Helen's Babies.
2. (a) In what work, by what author, are found: 1—Ichabod Crane. 2—Uncle Tom. 3—Leather-stocking. 4—Jim Nye. 5—The School-mistress.
(b) What did Margaret Fuller write?
3. (a) What essays by Emerson have you read? Give a quotation.
(b) What works by Hawthorne have you read? Give a quotation.
4. (a) How does Emerson's style differ from Hawthorne's?
(b) How does Whittier differ from Bryant?

5. (a) Who was Horace Mann, and in what kind of literature did he excel?
(b) Who are Curtis, Howell and Higginson, and in what line is their chief work?
6. (a) Compare, by two statements about each: 1—Webster. 2—Sumner. 3—Phillips.
(b) Ditto: 1—Channing. 2—Parker. 3—Hale.
7. (a) How does Bret Harte differ from Mark Twain?
(b) How does Holmes differ from Saxe?
8. (a) Which makes the greater use of Teutonic words in English, Hawthorne or Bancroft?
(b) Ditto, Whittier or Bryant?
9. (a) What have you read of Miss Alcott's? Why do you like it?
(b) Ditto—Alice Cary?
10. (a) Give a sketch of Mrs. Stowe, and name such of her works as you have read.
(b) Name five classes of American literature, and mention the author that you think stands at the head of each.

EXTRA QUESTIONS IN LITERATURE.

Ten Credits.

1. Name the three leading historical works written by California authors.
2. What editor and what professor in California are ranked as poets?
3. What two women in California write good poetry?
4. What Californian is the author of: 1—A History of California. 2—The Argonauts. 3—The Hermitage. 4—Resources of California. 5—Annals of San Francisco.
5. Name one woman in California well known as a lecturer, writer, and educator.

 Credit on a scale of ten credits each, and divide the total by 5.

Select one of each pair of questions.

1. (a) Why is Hawthorne ranked as the first of American novelists? Quote a sentence from him.
(b) Where do you class Emerson? Quote a sentence from him.
2. (a) Name two historians. Two novelists. Two essayists. Two editors, and two writers of both prose and poetry.
(b) Give a quotation from five poets.
3. (a) Class the following authors, and name something of each that you have read: 1—Poe. 2—Mrs. Stowe. 3—Emerson. 4—Miss Alcott. 5—Whittier.
(b) Name the authors of the following: 1—The Skeleton in Armor.

2—The Gold Bug. 3—Reveries of a Bachelor. 4—The Heathen Chinese. 5—The Good Little Boy.

4. (a) What kind of a writer is Mark Twain? Why? Quote something from him.
- (b) What is W. D. Howells, and in what does he excel?
5. (a) Which of Whittier's poems have you read? What do you think about them?
- (b) Ditto, Longfellow.
6. (a) Quote something from: 1—Holmes. 2—Scott. 3—Alice Cary. 4—Tennyson. 5—Bret Harte.
- (b) Quote something from: 1—Whittier. 2—Bryant. 3—Burns. 4—Longfellow. 5—Mrs. Hemans.
7. (a) Name 10 authors born in New England.
- (b) Name 5 born elsewhere in the United States.
8. (a) What did Franklin write, and give him a place among authors.
- (b) What did he do to give him a place among philosophers?
9. (a) Name 10 living American writers.
- (b) Name 10 deceased American authors.
10. (a) What benefits have you derived from the study of literature?
- (b) Make a list of the ten best books that you have read, no two by the same author, and name the author of each.

EXTRAS.

Credit on a scale of 10 Credits each, and divide the total by 5.

1. Name the three (3) leading historical works written by California authors.
2. What editor and what professor in California are ranked as "Poets?"
3. What two (2) women in California write good poetry?
4. What Californian is the author of: 1. A History of California. 2. The Argonauts. 3. The Hermitage. 4. Resources of California. 5. Annals of San Francisco.
5. Name one woman in California well known as a lecturer, writer and educator.

SENIOR CLASS.

1. (a) Give three leading male novelists (British) of the nineteenth century, and four works of each.
- (b) Give the characteristics of two of the three, exemplifying by short references or by quotations.
2. (a) Name three leading female novelists (British) in the order of their merit, and three of the best works of each.
- (b) Name five poetesses, with a well-known poem of each.

3. (a) Which one of the British poets is noted for his poetical use of Old English, and for making prominent subjects connected with the early Britons? Exemplify each.
- (b) Which one showed great power in expressing the sublime, the tender, and the imaginative? Exemplify each.
4. (a) Give a selection of two consecutive stanzas of typical poetry from Coleridge.
- (b) Give a selection from Tennyson, showing the unselfishness of *love*; another, showing his descriptive power.
5. (a) To what division and subdivision of poetry does In Memoriam belong? Why? Who is the author?
- (b) Give an epic, a lyric, and a dramatic poem by the same author; also, one combining the elements of the three kinds.
6. (a) Odes by Gray? Selection from one of them containing an allusion to Shakespeare.
- (b) Selection of four consecutive lines from his Elegy, giving a picture of domestic life.
7. (a) What poet noted for his wit and pathos? Exemplify by quotations from different poems.
- (b) Author of the Excursion? To what school of poets does he belong? Give four poems by the same and a quotation of four lines from one.
8. (a) Author of Childe Harold? Give other poems by the same, one a drama.
- (b) Give a selection from the Address to the Ocean, expressing sublimity, and show why.
9. (a) Name four essays, three poems and a history by Macaulay. What does the 3d chap., vol. i, of his history treat of?
- (b) Name four other British historians of the nineteenth century, with the historical works of each.
10. (a) In what and whose works are the following characters found: Betsy Trotwood, Becky Sharp, Agnes, Ethel, Uriah, Florence, Genevieve, Paul, Susan Gale, Ben Battle?
- (b) Page 310 Literature, parse the underlined words, "*God! sing ye streams with,*" etc.; page 309, 2d line, *passing*; page 309, last div., *slope*; page 488, 11th line, *rose*; page 489, 4th div., *hove*; page 490, 7th line, *thou*.

50 Credits.

Select one of each pair.

1. (a) Who made the first translation of the Bible into English, and at

what time? When and by whom was the present English Protestant version made?

(b) Quote two verses from the Bible, and classify the words into Teutonic (A. S.) and Romanic.

2. (a) What great English poet wrote about the time of the first translation of the Bible? What did he write?

(b) Name some particular in which our language has changed since then.

3. (a) Whose works best represent the English language during the Elizabethan period?

(b) How did the style of that period differ from that of the present day? Illustrate.

4. (a) What were the earliest forms of the English drama? What dramatic writers besides Shakespeare?

(b) What of the drama during Cromwell's time?

5. (a) Who wrote: 1—A New Way to Pay Old Debts. 2—She Stoops to Conquer, 3—Every Man in His Humor. 4—Cato. 5—Love's Labor Lost.

(b) Who were Beaumont and Fletcher?

6. (a) What was Milton's great poem intended to illustrate?

(b) Give a quotation of at least 4 lines, and state some characteristic of his style.

7. (a) Name at least three old English writers of State, and what they wrote?

(b) Ditto, humorous. Ditto, pathetic.

8. (a) Name three leading historians of the 18th century, and their works.

(b) Name three great writers of "the new history," in the 19th century.

9. (a) Name the principal writers of fiction up to 1832.

(b) Which was the greatest, and why?

10. (a) Write four quotations from Shakespeare.

(b) Quote four lines from Chaucer.

EXTRAS.

1 Credit Each.

1. What was there in English literature prior to the time of Chaucer.

2. Name five words from the Bible now obsolete, or used with a different meaning.

3. Ditto, Shakespeare.

4. Who has written the best work on English literature?

5. Who has written the most exhaustive treatise on English grammar?

HISTORY.

JUNIOR CLASSES, 1877.

Select one from each pair.

1. (a) What country has the oldest history, and how is it recorded?
(b) Name the three great divisions of the human race, and state what people are included in each.
2. (a) Who were the Phœnicians, and for what are we partially indebted to them?
(b) For what are we indebted to the Hebrews?
3. (a) What are: 1. Hieroglyphics. 2. Cuneiform characters. 3. Sanskrit. 4. The Vedas.
(b) The Egyptians: 1. Of what stock? 2. Their advancement. 3. Their architecture. 4. Their religion.
4. (a) The oldest library in the world—when and by whom founded?
(b) State something of consequence about each of the following: 1. Nebuchadnezzar. 2. Cyrus. 3. Alexander. 4. Solomon.
5. (a) What fact is made known by means of Sanskrit?
(b) What is caste, and where found?
6. (a) What were the leading cities of Greece, and when was Greece at the height of its glory?
(b) Who were: 1. Socrates. 2. Pericles. 3. Leonidas. 4. Homer. 5. Plato?
7. (a) What have we derived from the Greeks? The Romans?
(b) State the character and the effect of the laws of Lycurgus.
8. (a) Name ten names distinguished in Roman history?
(b) State four marked events in the life of Julius Cæsar.
9. (a) State three political periods of Roman history, and the length of each.
(b) How and when was the Roman Empire broken up?
10. (a) State briefly what you know about the Punic wars.
(b) In what respects was the civilization of Greece and Rome inferior to ours?

EXTRAS.

Five Questions, One Credit Each.

1. When was Constantinople made the capital of the Roman Empire?
2. In what respects were the Romans superior to the Greeks?
3. Name three distinguished women of Greece. Three of Rome.
4. In what year was the battle of Marathon?
5. When was Herodotus born?

MIDDLE CLASSES.

One Hundred Credits, Ten Questions, Ten Credits Each.

N. B.—Allow pupils to choose *a* or *b* of each pair.

1. (a) When and by whom was Constantinople taken, and what empire did its capture end?
(b) What three men were concerned in the invention of printing, and what did each do?
2. (a) Who invented gunpowder, and when and what was the effect on feudalism?
(b) What is meant by the "balance of power" in European history?
3. (a) What king established the Church of England, and how did he do it?
(b) How came the Netherlands to be independent of Spain?
4. (a) *When, where and why* was the Great Armada fitted out, and what came of it?
(b) Sketch the character of Queen Elizabeth.
5. (a) State something that each did: 1. Copernicus. 2. Galileo. 3. Tycho Brahe. 4. Michael Angelo. 5. Lord Burleigh. 6. Sir Walter Raleigh.
(b) What causes led to the establishment of the Commonwealth, and what was the condition of England under it?
6. (a) What of the manners and morals of the people of England soon after the Restoration?
(b) Character of Richelieu?
7. (a) How came Mary and William to rule England?
(b) What was the Edict of Nantes, and what was the effect of its revocation?
8. (a) Condition of education at the end of the seventeenth century?
(b) What did Peter the Great do for Russia?
9. (a) State the causes that led to the French Revolution.
(b) State the successive steps by which Napoleon I. became Emperor.
10. (a) What did Richard Cobden do?
(b) What did the Chartist demand?

EXTRAS.

Allow the credits, provided the total does not exceed 100.

1. Five Credits.

When and by whom invented: 1. Printing. 2. Gunpowder. 3. Steam engine. 4. Cotton gin. 5. Spinning jenny.

2. Five Credits.

When and by whom invented: 1. Electric telegraph. 2. Steamboat. 3. Vulcanized rubber. 4. Power loom. 5. Sewing machine.

ALGEBRA.
JUNIOR CLASSES.

Select one of each pair of questions. Cover your work.

Ten Questions, Five Credits Each.

1. (a) Define: 1—exponent; 2—coefficient; 3—terms; 4—factors.
(b) Give rule for subtraction, and an example to illustrate.
2. (a) Multiply $1+x+x^4$ by $1-x+x^2-x^3$.
(b) Show that $x^0=1$; $\frac{a}{b}=\frac{b^{-1}}{a^{-1}}$
3. (a) L. O. M. of a^3-b^3 and a^2-b^2 .
(b) G. C. D. of $25x^2-40xy^2+16y^4$; $5x-4y^2$; $25x^2-16y^4$.
4. (a) Product of the sum and difference of two quantities. Example.
(b) Divide a^n-x^n by $a+x$ to five terms.
5. (a) Is x^3-y^3 exactly divisible by $x^{\frac{1}{2}}-y^{\frac{1}{2}}$?
(b) $\frac{3x}{2x-2} \div \frac{2x}{x-1}$
6. (a) Define an equation, make one up and reduce it.
(b) $\frac{3x-1}{7} + \frac{6-x}{4} - \frac{2x-4}{12} = 2 - \frac{x+2}{28}$ (value of x ?)
7. (a) Define an axiom, and state one.
(b) Define a reciprocal and give an example.
8. (a) The sum of two numbers is 20, and it is to their difference as 10 to 1; what are the numbers?
(b) Give the three short steps in the "Solution of Problems."
9. (a) A sum of money, placed at simple interest, in thirteen months amounted to \$113, and in twenty months to \$120. What is the principal?
(b) A can do a piece of work in ten days, which B can do with A in six days. Find time B requires alone.
10. (a) Define: 1—ratio; 2—proportion; 3—extremes; 4—means; 5—make up an algebraic proportion.
(b) Clear of fractions $\frac{4}{5} + a - 14 = \frac{x+a}{2}$

EXTRA CREDITS—ONE FOR EACH QUESTION.

1. Why are the signs changed in subtraction?
2. What is the product of two minus quantities plus?
3. What is the difference between algebra and arithmetic?
4. Explain and illustrate the law of transposition.
5. Factor $3x-3y$, $y-x$, $2a+2b$, z , 37.

SENIOR CLASS.

1. (a) In what does the reduction of radicals consist?
 (b) What are similar radicals?
 (c) What is a pure quadratic equation?
 (d) When may the ——— root of a quantity be simplified?
 (e) Give the rule for raising a radical to any power. Rule for extracting the roots of radicals.
2. Find the sum of $\sqrt{\frac{3}{4}}$, $\sqrt{\frac{1}{2}}$, and $\frac{1}{4}\sqrt{3}$.
 Find the difference between $3(16a^9b^2)^{\frac{1}{4}}$ and $2a(a^5b^2)^{\frac{1}{4}}$.
3. Multiply $\sqrt{\frac{1}{2}}$ by $\sqrt{\frac{3}{8}}$.
 Multiply $^3\sqrt{x^2} - ^3\sqrt{xy} + ^3\sqrt{y^2}$ by $^3\sqrt{x} + ^3\sqrt{y}$.
4. Divide $4a^2x^3\sqrt{72ax^4}$ by $2a^3\sqrt{18ax}$.
 Divide $4^3\sqrt{9}$ by $2\sqrt{3}$.
5. Extract the cube root of $(m+n)\sqrt{m+n}$.
 Raise $^4\sqrt{ac^2}$ to the 2d power.
6. Given $3x^2 - 29 = \frac{x^2}{4} + 510$ to find x .
 Find an equation whose roots are 6 and 15.
7. Given the equation $\frac{x^2}{4} 30 + x = 2x - 22$ to find x .
8. (1) $x + y = 12$. (2) $yx = 35$. Value of x and y .
9. (1) $x^2 + y^2 = 152$. (2) $x + y = 8$. Value of x and y .
10. The difference of two numbers is 3, and the sum of their squares is 117, what are the numbers?

MIDDLE CLASS.

Fifty Credits.

Select one from each pair of questions.

1. (a) How does addition in algebra differ from addition in arithmetic?
 (b) Define: 1—Algebra. 2—Exponent. 3—Co-efficient. 4—A radical.
 5—Problem.
2. (a) How do negative exponents arise, and what do they signify?
 (b) Demonstrate that the product of like signs will produce a plus quantity.
3. (a) When and why are the signs of terms included in a parenthesis changed?
 (b) Divide $\frac{x^4 - b^4}{b^2 + b^2 - 2bx}$ by $\frac{x+b}{x-b}$.

4. (a) Find the G. C. D. and L. C. M. of a^4-1 , a^5+a^3 , and a^2+1 .

(b) Factor—

1. $(1-12z+36z^2)$.

2. $(m^{16}-c^{16})$.

3. $(a^2c^2-c^2)$.

4. (m^9-m^5) .

5. $(9a^2c^4x^2-1)$.

5. (a) Demonstrate that $a^0=1$.

(b) Find the value of x in this equation:

$$\frac{7x+9}{8} - \frac{3x+1}{7} = \frac{9x-13}{4} - \frac{249-9x}{14}$$

6. (a) Expand $(3x-2y)^5$.

(b) Extract the square root of 824792.

7. (a) Cube root of $\frac{64x^3y^6}{125m^8n^9}$

(b) Cube root of $a^3-8b^3+12ab^2-6a^2b$.

8. (a) Reduce—

$$x+4y+4z=300.$$

$$y+7x+7z=450.$$

$$y+9x+9y=490.$$

(b) Give directions for solving a problem.

9. (a) Multiply $(x+\sqrt{y})$ by $(x-\sqrt{y})$.

(b) There are two numbers whose sum is 100, and three times the less taken from twice the greater gives 150 for a remainder. Find the numbers.

10. (a) Divide 204 into two such parts that $\frac{2}{3}$ of the less being taken from the greater the remainder will be equal to $\frac{2}{7}$ of the greater subtracted from four times the less.

(b) A merchant bought 2 pieces of cloth for £12, 13s., one being 8 and the other 9 shillings per yard. He sold them each at an advanced price of 2 shillings per yard, and gained thereby £3. Required, the number of yards in each piece.

TEXT-BOOK BOTANY.

SENIOR, JUNIOR AND MIDDLE CLASSES.

Ten Credits, Ten Questions, One Credit Each.

Time, one hour, exactly.

1. Name the four parts of a flower.
2. What is the *plumule*?
3. Name two kinds of leaf-margins, and draw a leaf to illustrate each.

4. Define *biennials* and *perennials*.
 5. What are *orchids*?
 6. Name five kinds of roots.
 7. What is a *sucker*?
 8. Define *endogenous* and *exogenous*.
 9. Draw a palmate leaf of five leaflets.
 10. What is grafting or budding?
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PRACTICAL BOTANY.

JUNIOR CLASS.

Five Questions, Three Credits Each.

1. Name three orders of plants, and give three characteristics of each.
 2. Name six plants not belonging to the orders you have named.
 3. Describe the leaves of lupine; of sweet alyssum.
 4. Describe the calyx, corolla, and stamens of any plant you have not yet named on your paper.
 5. Draw a diagram showing the position of the petals in the corolla of the pansy.
-

MIDDLE CLASS.

Five Questions, Three Credits Each.

1. Describe any plant you know.
 2. Name three orders of plants and three plants belonging to each order.
 3. Describe the calyx, corolla and stamens of lupine, poppy, violet.
 4. Give three characteristics of the *compositæ*; of the *umbelliferæ*.
 5. Give six characteristics of cruciferous plants.
-

SENIOR CLASS.

Five Questions, Three Credits Each. Fifteen Credits.

1. Name three seeds whose cotyledons appear above ground in germination, and two whose cotyledons remain under ground.
2. Name five orders and two plants belonging to each.

3. Name a plant not belonging to any one of the orders you have named. Tell five things about its leaves, and five about its flowers.

4. Write ten names of parts of a flower. Draw a diagram of a flower representing one of each of its parts.

5. Draw a petiolate palmately veined stipulate leaf with a serrate margin.

ZOOLOGY.

SENIOR CLASS.

Fifty Credits.

Select one question from each pair.

1. (a) Name five distinguished zoologists.
(b) State the work of Cuvier and Agassiz:
2. (a) State the difference in the composition of organic and of mineral bodies.
(b) State the difference of structure.
3. (a) What about the origin of plants and animals?
(b) State four substances that enter into the composition of animals and plants.
4. (a) What is the physical basis of living bodies?
(b) Name three essential manifestations of animal life.
5. (a) Describe a cell.
(b) Define protoplasm.
6. (a) Name five tissues, and give one fact in connection with each.
(b) Define and classify food.
7. (a) Name an animal of each sub-kingdom.
(b) Name five different types of the alimentary canal.
8. (a) Describe the digestive process of vertebrates.
(b) State three modes of the attachment of the teeth.
9. (a) Why are the teeth of animals of great importance to the zoologist?
(b) State the difference between lacteals and lymphatics.
10. (a) What is meant by natural selection?
(b) What is the theory of evolution as presented by Spencer, Huxley and Darwin?

EXTRAS.

1. Sketch the principal organs of the sea-urchin.
2. Classify and give a short description of any animal examined in class-room, or seen under the microscope.
3. Define ornithotomy, osteology, odontography, entomology, neurotomy.
4. Show the connection between the teeth and the food of three mammals.
5. Give the difference in the mouth of the masticating and the suctorial insects.

SENIOR CLASS.

Fifty Credits.

Select one of each pair.

1. (a) State the difference between the blood of vertebrates and invertebrates.
(b) Give the composition of the blood of vertebrates.
2. (a) State the difference between the blood of cold-blooded and warm-blooded animals.
(b) Explain how blood performs its office.
3. (a) Give three types of the circulatory system.
(b) Name the classes of animals that have no separate respiratory system.
4. (a) Name two organs of respiration used by air-breathers; two by water-breathers.
(b) Describe the respiratory organs of insects.
5. (a) Describe the skin and give its uses.
(b) Point out the difference between the exoskeleton and the endoskeleton.
6. (a) Name three excretory organs; three secretory organs.
(b) What supplies the place of salivary glands in birds?
7. (a) Of what does a typical vertebræ consist?
(b) What parts of a skeleton are always present?
8. (a) Give the five distinct plans of structure found in the animal kingdom.
(b) Give five modifications of the vertebra type, and a characteristic of each.
9. (a) Describe a sponge.
(b) Point out the difference between an oyster and a clam.
10. (a) Are acephala univalve or bivalve mollusks? Encephala?
(b) How is the shell of mollusca produced?

EXTRAS.

One Credit Each.

1. What is a species? A genus?
2. What is the difference between a whale and a cod fish?
3. Show that the liver is not only a secretory, but an excretory organ.
4. What is the difference between a snake and a worm?
5. Of the animals found in San Francisco Bay name two belonging to each sub-kingdom.

PHYSICS.

JUNIOR CLASSES.

50 Credits.

Select one from each pair.

1. (a) Name the properties of matter.
(b) What is the specific gravity of a body?
2. (a) Explain the use of a thermometer and a barometer.
(b) How far does a body fall in three seconds?
3. (a) 1—What force acts upon wood when it burns?
2—Upon ice when it melts?
3—Upon water when it rises in a vacuum?
4—Upon water when it rises in a very small tube?
5—Upon sugar when it is dissolved?
(b) What classes of levers may be used when we wish to gain power?
To gain velocity?
4. (a) A lever of the first class is 14 feet long; where must the fulcrum be placed to raise a weight of 1,200 pounds with a power of 200 pounds?
(b) How long must a pendulum be made to vibrate three times a second?
5. (a) In a wheel and axle the radius of the wheel is ten feet; that of the axle is three inches; what load will be lifted by a power of 200 lbs?
(b) In how many seconds will a body fall 402 feet?
6. (a) An inclined plane is six feet high; how long must it be if a power of 50 lbs. moves a weight of 250 lbs. up the plane?
(b) Draw a diagram to show the resultant of the forces 2, 3, 4.
7. (a) What is the resultant motion? Give two illustrations.
(b) A body weighs 4.75 lbs. in water and 5.07 lbs. out of water; find its specific gravity.
8. (a) A screw with threads one-half inch apart is moved by a power of 50 lbs., applied to a wrench 10 inches long; what force will a power of 100 lbs. exact?
9. (a) How many horse powers are required to raise six cubic feet of water each minute to the height of 100 feet?
(b) Find the momentum of a body whose weight is five tons and whose velocity is five feet per minute.
10. (a) Name the correlative forces.
(b) Define heat.

EXTRA CREDITS.

Five Questions, One Credit Each.

1. How many centimetres in 29,922 inches?
2. How many cubic inches in a pint of water?
3. How many square miles in a circle of two inches radius?
4. What does a liter of dry air weigh in grammes?
5. If a gallon of boiling water melts 10 lbs. of ice, how much will be required to melt one cubic foot?

 SENIOR CLASS.

Select one of each pair.

1. (a) Name five elements; five compounds.
(b) Name five general properties of matter.
2. (a) Name five substances that may be changed from one to either of the other forms of matter.
(b) Define force and give its subdivisions.
3. (a) Define specific gravity; give the rule for finding it; illustrate by working an example.
(b) What is the specific gravity of gold; platinum?
4. (a) State Newton's law of gravitation. If a mass of granite weighs 20 tons at the earth's surface, what would it weigh at the distance of the moon, 24,000 miles?
(b) A cubic inch of air weighs $\frac{31}{100}$ of a grain at the level of the ocean; how much will it weigh on a mountain, where the mercury stands 15 inches in the barometer? How much in a diving bell 34 feet below the level of the water?
5. (a) How much will a cubic foot of gold weigh in water?
(b) If the receiver of an air pump is exhausted, what force will separate it from the plate, the diameter being 12 inches?
6. (a) Give a good definition of heat.
(b) Give a good definition of light.
7. (a) What is meant by the correlation of heat and motion?
(b) What is resultant motion? Give three illustrations.
8. (a) Define cohesion, adhesion and affinity.
(b) What is one evidence that the earth is an oblate spheroid?
9. (a) With what velocity must a ball be shot upwards that it may rise to the height of $628\frac{1}{8}$ feet in a vacuum?
(b) What is the total pressure upon the bottom, sides, and ends of a cistern six feet long, three feet wide and four feet deep, when full of water?

10. (a) Explain the difference between the amount of heat and the temperature of a body.
- (b) State the general law of mechanical powers.

EXTRAS.

Five Questions, One Credit Each.

1. Change 25.37 meters into feet.
2. What is meant by one horse power?
3. Why is it impossible to construct a perpetual motion machine?
4. What is the velocity of light, and how is it determined?
5. Name five great discoverers in physics, and state the discoveries of each.

CHEMISTRY.

MIDDLE CLASSES.

Fifty Credits.

Select one of each pair.

1. (a) Define acids and alkalies, and mention two examples of each.
- (b) Define chemical affinity, and name three agencies that favor chemical action.
2. (a) Name the four constituents of air, and mention the use of each.
- (b) Name the elements of water, and mention its three chief uses.
3. (a) What is produced when a candle burns? Name four other substances which give the same products.
- (b) What is produced when a metal burns? Mention the metals that you have seen burning.
4. (a) State how O. N. H. and C. O₂ may be prepared.
- (b) Name and give the atomic weights of five metals.
5. (a) What is the composition of common illuminating gas?
- (b) What are hydro carbons? Mention four.
6. (a) What is the chemical relation of plants to animals?
- (b) State three points of difference between organic and inorganic bodies.
7. (a) What is: 1 — Brandy? 2 — Whisky? 3 — Wine? 4 — Beer?
- 5 — Alcohol?
- (b) What causes the fermentation of grape juice? Of beer?

8. (a) What is the chemical reaction when Na is heated with olive oil?
(b) What are mordants?
9. (a) Explain the chemistry of bread making.
(b) Explain soap making.
10. (a) How can you obtain oxygen gas? Hydrogen?
(b) Chemical relation of oxygen to the blood.

EXTRAS.

Five Questions, One Credit Each.

1. A gallon of hydrogen weighs 46 grains, how much zinc must be used to obtain two gallons of gas?
2. A gallon of oxygen weighs 74 grains, how much potassium chlorate must be used to obtain a gallon of oxygen?
3. Name an antidote for ley. What would be formed in the stomach?
4. How much chlorine gas may be obtained from a pound of salt?
5. Which would be the more economical to use in bread making, saleratus at 40 cents per pound, or soda at 60 cents.

GEOGRAPHY—Blank Book Outlines.

SENIOR, MIDDLE AND JUNIOR CLASSES.

Twenty-five Questions, Two Credits Each. Fifty Credits.

Write your name at the head of the paper, the name of your regular teacher, and the grade of your class. Ask no questions. Punctuate.

I. OUR COUNTRY.

1. Three great physical divisions.
2. Five chief rivers.
3. Six bays commercially important.
4. Four capes noted in navigation.
5. Six chief seaport cities.
6. Ten largest cities in order of population.
7. Three leading States—their rank in (a) area; (b) population.
8. Three States ranking highest in (a) manufactures; (b) mining.

II. THE CONTINENTS.

9. Contrast in (a) shape; (b) size.
10. What part of each is made up of (a) plains? (b) plateaus?
11. Native domestic animals of each world?
12. Indigenous products of each world?
13. Contrast in (a) population; (b) race.
14. Name the eight chief cities of the Old World.

15. Contrast the two worlds in (*a*) moisture; (*b*) life.
16. Name and height of the highest mountain peak in (*a*) the New World; (*b*) the Old World.
17. Three chief plateaus in (*a*) the Old World; (*b*) the New World.
18. Five chief ocean currents.
19. The chief seas of (*a*) the Old World; (*b*) the New World.
20. Five largest islands of (*a*) the Old World; (*b*) the New.
21. Population of (*a*) Asia; (*b*) Africa; (*c*) Europe; (*d*) North America.
22. Four islands having the greatest population, with the approximate population of each.
23. Population of (*a*) Chinese Empire; (*b*) British Empire; (*c*) Russian Empire; (*d*) United States.
24. Five chief cities of the globe, with the population of each.
25. Three chief cities of Africa.

EXTRA CREDITS.

Five Questions, One Credit Each.

No credits whatever, unless each question is answered in full, precisely as given in the blank books.

1. Estimated population by races:—I. Caucasian. II. Mongolians. III. African.
2. Vegetable products; leading countries in order of rank: I. Cotton. II. Coffee. III. Silk.
3. Vegetable products; leading countries in order of rank: I. Wheat. II. Rice. III. Flax.
4. Mineral products; leading countries in order of rank: I. Iron and coal. II. Gold. III. Silver.
5. Estimated population by religions: I. Buddhists and Brahmins. II. Christians. III. Mohammedans.

PHYSICAL GEOGRAPHY.

SENIOR CLASSES.

Fifty Credits.

Select from each pair either A or B. Ask no questions. Punctuate.

1. (*a*) Currents.
 - I. Causes and uses.
 - II. Name the five chief ones.
 - III. General direction.

- (b) Winds.
 - I. Causes and uses.
 - II. What are the "Trades?"
 - III. Where do the return trades blow?
- 2. (a) Distribution of plants.
 - I. Total number of species.
 - II. Why numerous in the tropics and sparse toward the poles?
 - III. What is red snow?
- (b) Animals.
 - I. How many species?
 - II. Animals of the Torrid Zone. Name 10.
 - III. Races and number of each.
- 3. (a) Crust of the Earth.
 - I. Two main classes of rocks?
 - II. Of what is chalk composed?
 - III. What of fossiliferous rocks?
- (b) Volcanoes.
 - I. What two classes?
 - II. Where are the great lines found?
 - III. Name five noted ones.
- 4. (a) The Earth.
 - I. Distance from the sun?
 - II. Three motions?
 - III. Equatorial Diameter?
- (b) I. The ecliptic?
 - II. Width of each zone?
 - III. What is a delta?
- 5. (a) Land and Water.
 - I. Area of the globe?
 - II. What is about the centre of the land surface?
 - III. Area of Asia?
- (b) I. Height of Mt. Blanc and Mt. Everest?
 - II. Laws of the rise of continents?
 - III. The five longest mountain chains?

S P E L L I N G .

SENIOR, MIDDLE AND JUNIOR CLASSES.

Seventy-five Words, One Credit Each. Fifty Credits.

Credit on a scale of 100, and divide by 2.

Benefited,
Deferred,

Benign,
Trapeze,

Imbroglia,
Remittance,

Deference,	Taboo,	Guarantee,
Humbugged,	Tattoo,	Supersede,
Coralline,	Destine,	Chalybeate,
Cancellation,	Margin,	Exonerate,
Contrivance,	Certain,	Exhilarate,
Marriageable,	Village,	Inflammable,
Argument,	College,	Diphtheria,
Valleys,	Porridge,	Eleemosynary,
Dayly,	Atrocity,	Ammunition,
Pianos,	Verbosity,	Spermaceti,
Calicoes,	Liege,	Erysipelas,
Physicking,	Seize,	Phosphorus,
Physical,	Squeeze,	Plagiarism,
Numskull,	Squeal,	Parasite,
Withal,	Desiccate,	Parricide,
Willful,	Guttural,	Acacia,
Combating,	Kerosene,	Vacillate,
Plaguy,	Milliner,	Pomegranate,
Vilifying,	Maintenance,	Isosceles,
Balance,	Sustenance,	Negotiate,
Caoutchouc,	Saccharine,	Trisyllable,
Gauger,	Camellia,	Dissyllable,
Poll-tax,	Dishevel,	Ostensible.

After dictating the last word, begin at the first word and pronounce each word again.

II. Rules of spelling. (15 credits.)

Five rules, 3 credits each.

Give the rule, and a word to illustrate it.

I. For doubling the final consonant.

II. Dropping final *e*.

III. Changing *y* into *i*.

IV. Keeping *y* unchanged.

V. Vowel sounds and pronunciation. 10 credits.

Write four words to illustrate each sound, and make the vowel in each word according to the notation of Webster's Dictionary.

1. Sound of *a* in palm.
2. Sound of *a* in fall.
3. Sound of *a* in ask.
4. Sound of *a* in what.
5. Sound of *e* in her.
6. Sound of *i* in thirst.
7. Sound of *u* in urge.
8. Sound of *u* in rule.
9. Sound of *o* in nor.
10. Sound of *oo* in book.

GRAMMAR.
SENIOR CLASSES.

Ten Questions, Five Credits Each.

Teachers will give no explanations whatever.

1. "*Let the selfish boast of the Spartan women become the grand chorus of mankind, that they have never seen the smoke of the enemy's camp.*"
 - I. What kind of an element is the one commencing with that and ending with camp, and what does it modify?
 - II. Parse only the italicized words.
3. "*Were he ten times the villain that he is, he would still find supporters.*"
 - I. Parse the italicized words.
 - II. Write two correct sentences using each other in the first, and one another in the second.
3. I. Construct sentences using *but* as different parts of speech.
 II. A sentence using *not only—but also*, and give the rule for the position of those words.
4. I. A sentence containing the nominative absolute.
 II. Sentences using *as* as different parts of speech.
5. I. Write a sentence containing corresponsives of equality, and parse the corresponsives.
 II. Two sentences containing corresponsives of inequality—the corresponsives having nothing in common.
6. "*I care not, Fortune, what you me deny.*"
 Parse the italicized words.
7. I. Give an example of the present infinitive.
 II. Give an example of the perfect infinitive.
 III. When do you use the perfect infinitive?
8. Give five sentences using a different relative adverb in each. Give the adverb and each equivalent in each sentence.
9. Sentences—
 - I. "He did it." Change into a complex emphatic sentence.
 - II. State the three uses of the noun-clause in the complex sentence, and give a sentence to illustrate each.
 - III. Make a complex sentence out of these two statements: "Riches are good," "Wisdom is better."
 - IV. Make a list of the co-ordinate conjunctions.
 - V. "The swimmer became exhausted and was drowned." Change first into a complex, and then into a simple sentence.

10. Punctuation—

- I. State three rules for the use of the comma.
 - II. Rule for marking off adverbial clauses.
 - III. With adjective phrases, when do you mark them off with a comma, and when not.
 - IV. When is the noun-clause marked off by a comma.
 - V. Rule for the semi-colon in the compound sentence.
-

SENIOR, MIDDLE AND JUNIOR CLASSES.

Ten Questions, Five Credits Each.

1. Define and give a sentence to illustrate:
 - I. A neuter verb.
 - II. A relative pronoun.
 - III. A co-ordinate conjunction.
 - IV. A complex sentence.
 - V. A common noun.
2. "A verb must be put in the form required by its subject."
 - I. State the verb inflections in the indicative mood, present tense.
 - II. Past tense, indicative.
 - III. When to use *shall*, and when *will*.
 - IV. Singular subjects connected by *and*, by *or*, or *nor*. Rule.
 - V. Collective nouns.
3. Correct, and tell the reason why:
 - I. He is older than me.
 - II. Who do you take me to be?
 - III. Whom did she marry?
 - IV. She is older, but not so tall as her sister.
 - V. We only missed four words.
4. State a general rule that will apply to the correction of these sentences:
 - I. I love pie, and hate cabbage.
 - II. I purchased two apples.
 - III. In my opinion, I think you are right.
 - IV. That is a tremendous big orange.
 - V. Your way is different to mine.
5. Correct, and state the general rule:
 - I. Never interrupt persons when speaking.
 - II. It is something which we know nothing of.
 - III. She is the prettiest girl I know of.
 - IV. Every teacher must make their reports on the first of each month.
 - V. I knew nothing about John going away.

6. I. This drawing was done by a girl that attended school merely for her own amusement.
 II. Distribution of adverbial phrases and clauses. Rule.
 III. Place of the *if* clauses.
 IV. In adjective clauses, when do you use *who* or *which*?
 V. She was polite, and of fine appearance.
7. Put into plain English:
 I. Was launched into eternity.
 II. Disastrous conflagration.
 III. Commenced his rejoinder.
 IV. Have a sufficient quantity.
 V. May I have the inexpressible delight of tripping the light fantastic with you?
8. I. What is the use of figures of speech?
 II. Give an example of Simile.
 III. Of Personification.
 IV. Of Metaphor.
 V. Rules for Metaphor.
9. Reason for correcting:
 I. It was neither him nor her who did it.
 II. If I was him I would accept.
 III. It was either her sister or her which I heard of.
 IV. Was you living there then?
 V. We went in the house.
10. I. Give three of the general principles of sentence making, taken from your blank-books.
 II. Give two directions about paragraphs.

BLANK-BOOK WORK IN WORD-ANALYSIS.

SENIOR, MIDDLE AND JUNIOR CLASSES.

Fifty Credits.

Divide the total by 2. 10 questions, 5 credits each.

I. PREFIXES AND SUFFIXES.

1. Name and define 5 Teutonic Prefixes, and give a word for each prefix.
2. Name and define 5 Teutonic Suffixes, and give a word to illustrate each.
3. Name the 5 verb-suffixes, and give a word to illustrate each.
4. Name 5 diminutive suffixes, with a word to illustrate each.
5. Name and define five suffixes of abstract nouns, with a word for each.
6. Name and define 5 adjective-suffixes, with a word to illustrate each.
7. Give 8 suffixes of *inflection*.

8. Give the literal or root meaning, and the secondary or synonymous signification of the following words:
1. unbar; 2. spinster; 3. avert; 4. affable; 5. coincide.
9. Write and define 5 Greek prefixes.
10. Analyze: 1. *decatalogue*. 2. *chronometer*. 3. cosmopolitan. 4. monarch. 5. synonym.

II. SYNONYMS.

Ten Questions, Five Credits Each.

11. Difference in meaning of the following pairs of words:
1. adjacent, contiguous; 2. good-humored, good-natured; 3. indolent, lazy; 4. contagious, infectious; 5. corporal, corporeal.
12. 1. abstinence, temperance; 2. customs, manners; 3. character, reputation; 4. humor, wit; 5. killing, murder.
13. 1. adage, proverb; 2. calamity, disaster; 3. death, decease; 4. labor, toil; 5. fright, terror.
14. Give ten words under the generic term "building."
15. Ten under "vessel."
16. Give the Romanic synonym of: 1. bequeath; 2. gather; 3. backbone. 4. bondage; 5. behead.
17. Give a Teutonic synonym for: 1. occult; 2. oriental; 3. pabulum; 4. agriculture; 5. restaurant.
18. Give the opposite of: 1. consequent; 2. equitable; 3. freedom; 4. wisdom; 5. truth.
19. Give a Greek synonym of: 1. belt; 2. bleeding; 3. coffin; 4. handwriting; 5. warm.
20. Give a Greek synonym of: 1. animadversion; 2. compendium; 3. nameless; 4. origin; 5. records.

ARITHMETIC.

SENIOR, JUNIOR AND MIDDLE CLASSES.

Ten Questions, Five Credits Each.

Ask no questions. Do your work neatly. Write your answer in large figures on the right of the page, and underline it with heavy double lines. Cover your work with a sheet of paper. No credits unless your answers are accurate.

1. Sold a house and lot for \$5000 and gained 35 per cent. of its cost; find the cost.

2. Sold a house and lot at a loss of \$162.50, thereby losing $2\frac{1}{2}$ per cent.; find the cost price. \$165.66

3. Bought apples at the rate of 5 for 4 cents, and sold them at the rate of 4 for 5 cents; find the per cent. of gain.

4. Multiply 16 by $\frac{3}{4}$, express the work in blank book form, and write the explanation as required in the blank book.

5. Divide 60 by $\frac{1}{6}$. Ditto, as above. [No credits whatever for the 4th and 5th, unless the method corresponds to the blank book analysis].

6. John Doe bought of Richard Doe & Co., in San Francisco, May 11, 1877, the following articles. Make out his bill and receipt it. John Doe's memorandum is as follows: [Doe was a poor speller]:

125 lbs. unions at $3\frac{1}{2}$ cents.

75 lbs. turnups at $1\frac{1}{2}$ cents.

250 lbs. pertaters at $2\frac{1}{4}$ cents.

150 lbs. beats at $2\frac{3}{4}$ cents.

25 lbs. straw berries at $9\frac{1}{2}$ cents.

4 doz. bernanners at 50 cents a doz.

12 lbs. sparrow grass at 10 cents a lb.

4 doz. aigs at $37\frac{1}{2}$ cents a doz.

7. How many acres in a piece of land, 1250 rods long and 840 rods wide?

8. How many square feet of surface, and cubic feet of air in a room 33 by $28\frac{1}{2}$ feet, and 16 feet high?

9. Change 300 feet to meters.

10. How many rods of fence will it take to inclose a square township?

Five Questions, Ten Credits Each.

11. I. On the 15th of December, 1876, you hired of John Doe \$150.75 at 10 per cent. interest, payable on demand. Write the note in due form. [5 credits for note].

II. What is due May 11, 1877?

12. Note for \$6000, dated San Francisco, January 12, 1877, payable in six months, with interest at $1\frac{1}{4}$ per cent. a month. Discounted at the Bank of California, March 10, 1877, at $1\frac{1}{2}$ per cent.

13. If 1500 copies of a book of 11 sheets require 66 reams of paper, how much paper will be required for 5000 copies of a book of 25 sheets of the same size as the former?

14. "El Capitan" in the Yosemite Valley is a cliff with a perpendicular face, 3000 feet high; find the length of a wire stretched from the summit to a distance of 2000 feet from the base.

15. Find the square feet of surface on the stump of a big tree 110 feet in circumference.

DRAWING.

SENIORS.

1. The rays of light are parallel to the picture plane and strike the ground plane at an angle of 30° . Construct a cube in angular perspective, shade it and draw its cast shadow, by the proper rules. (Time 30 minutes. 8 credits.)

2. Draw a tangent to a given or at a given point of contact, when the centre of the arc cannot be used. (3 credits.)

Construct a regular hexagon on a given base. (3 credits.)

Within a given circle inscribe an equilateral triangle. (2 credits. Time, 30 minutes.)

3. Draw a design of any description which can be applied to some practical use. (9 credits. Time 1 hour.)

MIDDLE CLASS.

1. Scale $\frac{1}{2}$ of $1''=1'$. The spectator is $13'$ from the P. P. The H. L. is $6'$ above the G. P.

$3'$ to the L. of S. is the nearest angle of a hexagonal prism lying on the ground upon one of its rectangular faces. Its visible base coincides with the picture plane. Sides of base $2'$ long. Length of prism $8'$. Draw it. (8 credits. Time, 30 minutes.)

2. Draw boxes in parallel perspective in three positions, according to the rules governing model and object drawing, as follows: above the eye and to the right of the spectator; below the eye and to the left of the spectator, and with the eye of the spectator on a level with the top of the box. (8 credits. Time 30 minutes.)

3. Draw some design, stating to what practical use it can be applied. (9 credits. Time, 1 hour.)

JUNIOR CLASS.

1. Scale $\frac{1}{4}$ of $1''=1'$. Distance $12'$. Height of spectator $6'$.

Place a point in perspective, and with one corner resting upon the point, construct a square box $4'$ in diameter, in parallel perspective. State the exact position of the nearest corner of the box. (Time 30 minutes. 8 credits.)

2. Divide lines of different lengths into the same proportional parts. (3 credits.)

Draw a tangent to a given circle from a given point outside the circumference. (3 credits.)

Construct an isosceles triangle on a given base, and having a given vertical angle. (2 credits. Time 30 minutes.)

3. Draw a design and state to what practical use it can be put. (Time, 1 hour. 9 credits.)

The special teacher of drawing to credit the work.

JUNIOR CLASS.

1. Make the sketch of a design (half the pattern) for ornamentation of a China plate, border and centre pattern. Plate, 6 inches in diameter; border, $1\frac{1}{2}$ inch. Fine work not required. (13 credits; time, 1 hour.)
 2. (a) From a point opposite a line draw a perpendicular to it. (b) Erect a perpendicular to a line at its extremity. (c) Draw an angle and bisect it. (d) Draw an angle and construct another equal to it. (e) Trisect a right angle. (f) Draw a line three inches long and divide it into seven equal parts. (12 credits; time, 1 hour.)
-

MIDDLE CLASS.

Scale $\frac{1}{4}$ of 1"=1'. Distance 13'. Height 6'. *Geom. Perspec.*

1. Mark by a dot the position of a bird which is eight feet to the right of the spectator, four feet in the picture, and eleven feet from the ground plane. (13 credits; time, 30 minutes.)
 2. (a) Divide a line three inches in length into eleven equal parts. (b) Make any angle and construct another equal to it. (c) Draw a straight line and make another parallel to it. (6 credits; time, 30 minutes.)
 3. Make a rough sketch—free-hand—of a design within a hexagon. (6 credits; time, 1 hour.)
-

SENIOR CLASS.

Scale $\frac{1}{4}$ of 1"=1'. Distance 12'. Height of spectator 6'.

1. Draw the figure of a man six inches high, ten inches to the right of spectator and seven inches in the picture. (13 credits; time, $\frac{3}{4}$ hour.)
2. (a) Construct an isosceles triangle on a given base two inches in length, and a given vertical angle of 25° .—2 credits. (b) Draw a tangent to a given circle from a point outside.—2 credits. (c) Construct a triangle from three given lines, whose lengths are respectively 1, 2 and 3.—2 credits; time, 30 minutes.
3. Make a free-hand rough sketch of a design within an octagon. (16 credits; time, 45 minutes.)

QUESTIONS USED IN THE ANNUAL EXAMINATION OF
THE BOYS' HIGH SCHOOL, 1877.

ENGLISH LITERATURE.

MIDDLE CLASS.

1. (a) Give a sufficiently careful account of the Norman Conquest and their occupation of England, to account for the slight effect it had on the Anglo-Saxon tongue.
(b) When did the languages begin rapidly to coalesce?
(c) Name two of the most distinguished writers of this period, and also some of their leading works.
(d) According to Hallam, how were the changes brought about in the appearance of the language on the page, and its sound when spoken.
2. Give a careful account of what King Alfred did to restore the old English literary works which had been destroyed when the Danes burned the monasteries.
3. Tyndale is said to have "done more than any other to establish our idioms and diction." Give a careful account of him and his work.
4. Give one of the comments which head the chapters on Bacon, Spenser, Shakspeare, Milton, Dryden.
5. Who wrote each of the following works: (1) Utopia; (2) History of the Great Rebellion; (3) Essay on the Human Understanding; (4) Annus Mirabilis; (5) Hudibras; (6) L'Allegro; (7) Every Man in his Humor; (8) Pilgrim Progress; (9) The Schoolmaster; (10) Metrical Paraphrase of the Scriptures. -
6. Give a brief but characteristic account of each of the authors mentioned in Question 4, and name their leading works.
7. Give an outline of the Canterbury Tales, and state by whom written.
8. (a) Who introduced the sonnet and blank verse?
(b) Mention two historical, two semi-historical, and two fictional plays of Shakspeare.

SENIOR CLASS.

1. (a) Give a sufficiently careful account of the Norman Conquest and their occupation of England, to account for the slight effect it had on the English tongue,
(b) When did the languages begin rapidly to coalesce?

- (c) Name two of the most distinguished writers of this period of coalescence and some of their leading works.
- (d) According to Hallam, how were the changes brought about in the appearance of the language on the page and its sound when spoken.
2. Give a careful account of what King Alfred did to restore the old English literary works which had been destroyed when the Danes burned the monasteries.
3. Tyndale is said to have "done more than any other to establish the idioms and diction." Give a careful account of him and his work.
4. Give one of the comments which head the chapters on Milton, Dryden, Pope, Addison and Swift, and the author of the comment.
5. Give a brief but characteristic account of the authors mentioned in Question 4, and name the leading works of each.
6. Who wrote each of the following works: (1) Robinson Crusoe; (2) Utopia; (3) History of the Great Rebellion; (4) Pilgrim's Progress; (5) Pamela; (6) Tom Jones; (7) Roderick Random; (8) Tristram Shandy; (9) Rasselas; (10) Wealth of Nations.
7. Give as full an account of Johnson and his writings as you can.
8. (a) Whom did Pope take for his model?
 (b) What was the leading characteristic of Pope's writings?
 (c) What was the Augustan age of English literature?
 (d) What object had Addison in view in writing his short essays?

SENIOR CLASS.

Shakespeare's Julius Cæsar.

1. When did Shakespeare live—the exact date? During whose reign in England? Mention three of his literary cotemporaries. In what other species of composition, besides the dramatic, did he excel? What influence had his writings on the English language?
2. From what sources were the materials for the play of Julius Cæsar derived? Over what period does the action of the play extend?
 "And do you now strew flowers in his way,
 That comes in triumph over Pompey's blood?"
 What triumph is referred to?
 With what battle does the period of the play close?
 Who were the commanders in this battle, and how do they figure as characters in the play?
3. (a) "————— his silver hairs
 Will purchase us a good opinion."
 What words in (a) involve a figure of speech?
 What is the figure called?
 Write out the passage freed from figurative language.
 Answer the same questions regarding (b).

(b) "————— I'll about
 And drive away the vulgar from the streets;
 So do you too, where you perceive them thick.
 These growing feathers plucked from Cæsar's wing
 Will make him fly an ordinary pitch."

4. (a) That you do love me *I am nothing jealous.*
 (b) *He plucked me ope his doublet.*
 (c) We shall find of him a *shrewd contriver.*
 (d) Cassius, be *constant.*
 (e) Let him go
 And *presently* prefer his suit to Cæsar.
 (f) *Be not fond*
To think that Cæsar bears such rebel blood.
 (g) *Must I observe you.*
 (h) He is *addressed.*
 (i) If Brutus will vouchsafe that Antony
 May safely come to him and *be resolved*
 How Cæsar hath resolved to lie in death—
 (j) It may be these *apparent* prodigies
 May hold him from the capitol to-day.

Define or otherwise carefully explain the portions underscored.

5. Write a brief account of the interview between Brutus and Cassius, within the tent of Brutus.

Use care with regard to spelling, capitals, punctuation, etc.

ENGLISH COMPOSITION.

MIDDLE CLASS.

1. State the difference of meaning between these pairs of synonyms, and illustrate in sentences: shadow and shade; erect and construct; behavior and conduct.

(b) Correct: It is our duty to appease the distresses of others by quieting their fears and alleviating their resentments.

2. Define euphemism and circumlocution. Express by euphemism, "he is a scoundrel;" and by circumlocution, "life is short."

3. Write a letter containing an order for merchandise to be sent to you, part by express and part by railroad.

4. Correct and state the reason: (a) I saw a couple of boys quarreling this morning. (b) After they have done, we will take the balance. (c) He never named the matter to any one. (d) Write a marriage notice. (e) I expect you had a fine time last Saturday.

5. Define tautology and redundancy. Correct and point out errors: I saw a boy with his pockets full of a great many apples; I appeal to the world and the rest of mankind for the truth of what I say.

6. Define clearness and state the faults opposed.

Correct the following and point out the faults: Did you take that book to the library which I loaned you? (2) Mr. Greeley denied that he had ever used profane language in an interview which a certain newspaper reporter had put into his mouth.

7. What is a periodic sentence. In what does it differ from a loose sentence?

Make the following sentence periodic: He would still have had a moderate competence, after all his losses, if he had practiced a strict economy.

The live thunder leaps far along from peak to peak, among the rattling crags.

8. Give four of the principal figures of speech.

Name the figures of speech in these sentences: 1—Life bears us on like the stream of a mighty river 2—The clouds of adversity soon pass away. 3—Socrates drank the fatal cup. 4—My roof shall always shelter you. Express the last two in plain language.

9. Express in the fewest words that you can, the following verbose sentence: One of those omnipresent fellows, who are always around, as if, in pursuance of some previous arrangement, and whom we always encounter when an accident occurs, or a mishap befalls, raised his voice in thundering tones and suggested that the lady be carried into a neighboring drug store, which was close by.

10. Next to thinking clearly, it is useful to speak clearly, and whatever your position in life may hereafter be, it cannot be such as not to be improved by this, so that it is worth while making almost any effort to acquire it, if it is not a natural gift; it being an undoubted fact, that the effort to acquire it must be successful, to some extent at least, if it be moderately persevered in.

What are the faults in the above sentence? Write it as free from faults as you can.

HISTORY OF GREECE.

CLASSICAL JUNIORS.

1. (a) What did the ancient Greeks call themselves?
- (b) To what do you attribute the love of freedom which characterized the Greeks?
- (c) What war was immortalized by the genius of Homer?
- (d) Name two noted national festivals among the Greeks.
- (e) Name two noted Grecian law givers.

2. (a) Name the two most important cities of Greece.
- (b) Name one great battle on land, and one naval engagement, during the Persian Wars.
- (c) For what was Miltiades celebrated?
- (d) For what was Leonidas celebrated?
- (e) Who was called "the just" among the Athenians?
3. (a) What was the condition of Athens during the administration of Pericles?
- (b) Name two noted philosophers of Greece.
- (c) In the Peloponnesian war, which of the opposing cities was champion of the democracy?
4. (a) Who led the ten thousand Greeks in their retreat after the death of Cyrus?
- (b) After the fall of Athens, what city was pre-eminent in Greece?
- (c) What distinguished soldier fell at the battle of Mantinea?
- (d) Name a noted orator of the time of the Macedonian conquests.
- (e) Who was the tyrant of Syracuse?
5. (a) Name and locate three important battles that took place during the expedition of Alexander the Great.
- (b) Name two of his Generals.
6. (a) Give a general idea of the extent of his conquests.
- (b) Who was the teacher of Alexander in his youth?
- (c) At what age did Alexander die?

HISTORY OF ENGLAND.

ENGLISH JUNIORS.

- I. 4. (a) Give a careful account of Britain.
1. (b) Describe the *houses* of the Britons.
3. (c) Their *manner of living, manufactures, etc.*
- II. Magna Charta.
1. (a) About what *time*?
1. (b) In whose reign?
3. (c) State its leading provisions.
- III. 3. (a) How did the English kings come to lay claim to the throne of France?
1. (b) Who first pressed that claim?
- IV. 5. (a) What was the battle of Hastings?
1. (b) When fought?
3. (c) Result?
- V. 6. (a) Give a concise account of the battle of Crecy.
6. (b) Give a concise account of the battle of Agincourt.

- VI. 5. Give a concise account of the battle of Flodden Field.
- VII. 3. (a) Who was William Wallace?
- 2. (b) What victory over the English did he win?
- VIII. 2. (a) Between which peoples was the battle of Bannockburn?
- 1. (b) Who commanded the victorious army?
- IX. 2. (a) What rebellion grew out of the poll-tax?
- 4. (b) State the circumstances.
- 2. (c) Amount of the tax?
- X. Spanish Armada.
- 4. (a) For what organized?
- 2. (b) Leaders?
- 5. (c) Tell all you can about it.
- XI. 2. (a) Time of Elizabeth's reign?
- 5. (b) Five distinguished men of her time?
- XII. 10. Cause of the troubles which led to the execution of Charles I.?
- XIII. 7. What was the Star Chamber—its general character?
- XIV. 6. Who were the *Roundheads*, and why so called?
- XV. 10. Some of the leading acts of Oliver Cromwell?
- XVI. 10. Write as full an account as you can of Mary, Queen of Scots.

HISTORY.

ENGLISH SENIOR CLASS.

- 1. (a) What was the extent of the period in history known as the "Dark Ages?"
- (b) Mention one cause of the relapse from civilization to barbarism, which took place at this time.
- (c) Name two men eminent for learning during this period.
- 2. (a) What influence kept Europe from entirely relapsing into intellectual barbarism?
- (b) What was the characteristic art of the Middle Ages?
- (c) What name has been given to a confederation of a large number of German cities about the middle of the thirteenth century?
- 3. (a) To what nation are we indebted for our system of notation?
- (b) In what part of Europe did this nation flourish in the tenth century?
- (c) At the close of the Middle Ages, say about A. D. 1450, what was the most powerful nation in Europe?
- 4. (a) By what people was England conquered in A. D. 1066?
- (b) What was the first great step in the formation of the constitution of England?
- (c) The second step?

5. (a) Which was the most illustrious of the Italian republics?
 (b) What family of merchants rose to great influence in Italian politics?
 (c) Under what sovereigns was Granada, in Spain, wrested from the Moors?
6. (a) When did the Turks conquer Constantinople?
 (b) What European nation took the lead in maritime discovery?
 (c) What notable discovery was made by Diaz in 1487?
7. (a) What was among the chief agents in the destruction of feudalism in Europe?
 (b) What King of Spain became Emperor of Germany?
 (c) Who were his two competitors for the imperial crown?
8. (a) Who was Pope at the beginning of the Protestant Reformation?
 (b) Who was King of Spain during the rise of the Dutch Republic, and who was the great champion of freedom and protestantism in the Netherlands?
 (c) Who was Richelieu?
9. (a) By what king was the Edict of Nantes promulgated, and what was its character?
 (b) Under what sovereign was it revoked, and what was the result to France of its revocation?
 (c) For what are the following names remarkable in history: Mirabeau, Cromwell, James Watt and Cavour?
10. (a) At about what date did Napoleon assume the direction of the affairs in France?
 (b) When and at what battle was he finally defeated, and who was the chief commander of the opposing army?
 (c) What is the greatest name in European politics of to-day?
11. Give a brief but connected account of the campaigns of Napoleon. Write answer in carefully selected English and with composition partly in view. Answer to be written on a separate half-sheet, on both sides, if necessary.

NATURAL PHILOSOPHY.

MIDDLE CLASS.

1. (a) How does sound originate?
 (b) By what means is it propagated?
 (c) What is its velocity in air at the ordinary temperature?
 (d) How does its intensity vary with the distance of the sounding body?
 (e) What constitutes the difference between musical and other sounds?

2. (a) Upon what does the pitch of a musical sound depend?
(b) The loudness?
(c) Name an instrument employed for producing musical sounds and registering their vibrations at the same time.
(d) Why is a woman's voice on a higher key than a man?
(e) Through which medium is sound transmitted the more rapidly, iron or water?
3. (a) What kind of an instrument, scientifically considered, is the human voice?
(b) To how many octaves does its range extend?
(c) Name the three divisions of the human ear?
(d) What is the velocity of light?
(e) Explain the difference between the umbra and the penumbra?
4. (a) What is an instrument called for measuring the relative intensity of lights?
(b) Give an instance of the practical use of the instrument.
(c) Why does the bottom of a clear stream appear higher than it really is?
(d) At about what angle does light passing from water to air begin to be totally reflected?
(e) What term is used to denote the effect of a prism upon a beam of lights passing through it?
5. (a) State a practical application of the spectroscope.
(b) What new facts in astronomy has its use given us?
(c) How does an object appear when viewed through a concave lens?
(d) Sketch the form of six different lenses.
(e) What optical instrument does the human eye resemble?
6. (a) How is the eye adjusted for different distances?
(b) What is the visual angle?
(c) What causes nearsightedness, and how can it be remedied partially or wholly?
(d, e) Construct two diagrams, one showing the effect of a concave mirror, and the other a convex mirror, upon parallel rays of light.
7. (a) What adjective is applied to bodies which allow radiant obscure heat to pass through them freely?
(b) What term is applied to heat coming from a non-luminous body?
(c d e) Give three facts showing the analogy of heat and light.
8. (a) Name the best and the poorest conductors of heat among the ordinary metals, according to Tyndall's list.
(b c d) Name the effects of heat upon bodies. What do you mean by latent heat?
(e) On what principle is ice manufactured?

9. (a) Name three methods by which heat is distributed.
 (b and c) Name three kinds of thermometer scales, stating the freezing and boiling points of each.
 (d) Name a practical application of the general law that heat expands and cold contracts.
 (e) State the freezing and boiling points of mercury.
10. (a) Explain fully why the French call the end of the magnetic needle which points to the north the south pole of the needle.
 (b) What is the general law of magnetic attraction?
 (c) What is an electro-magnet?
 (d) Give three practical applications of electricity.
 (e) What is the object of a relay in the telegraph office?

GEOMETRY.

SENIOR AND MIDDLE CLASSES.

1. Define: 1—A plane. 2—A plane figure. 3—A circle. 4—A sector.
- 5—Similar polygons.
2. Demonstrate: Two parallels are everywhere equally distant.
3. To circumscribe a circle about a given triangle.
4. Prove that the two tangents drawn to a circle from a point without the circle are equal.
5. Prove that the lines which bisect the three angles of a triangle meet in one point.
6. Prove that the rectangle contained by the sum and difference of two lines is equal to the difference of their squares.
7. If in a right-angled triangle a perpendicular be drawn from the vertex of the right angle to the hypotenuse, the squares on the sides about the right angle are in the ratio of the adjacent segments, formed by the perpendicular on the hypotenuse.
8. Triangles which have their corresponding sides proportional, are similar.

ALGEBRA.

SENIOR CLASS—CLASSICAL DIVISION.

Time, Three Hours.

1. Define: 1—Power. 2—Root. 3—What is the square root of a quantity? 4—What does a fractional exponent denote? 5—Define elimination. 6—Simultaneous equations. 7—A rational quantity. 8—An imaginary quantity.

2. (a) Put the brackets on the expression in the order indicated, so that each bracket shall be preceded by the sign minus:

$$(1)\left\{ (2)\left[(3)\left(\quad \right) \right] \right\} \\ 7a - 3b + 4c - 5d - 2e$$

(b) If $a=1$, $b=2$, $c=2\frac{1}{2}$, $d=0$, find the value of

$$\frac{a-b+c}{a-b-c} - \frac{ad-bc}{bd+ac} - \sqrt{\left(\frac{b^3}{a^3} - \frac{a^3}{c^3}\right)}$$

3. Resolve into prime factors:

$$(1) x^6 - y^6; (2) x^6 + y^6 - 2x^3y^3; (3) x^3 + 1; (4) x^2 - 13x - 30.$$

4. (a) Find the value of $\frac{x}{x+y} + \frac{y}{x-y} - \frac{y^2}{x^2-y^2}$ when $y = \frac{3x}{4}$

$$(b) \text{ Simplify: } \left(a - \frac{2a}{x + \frac{1}{x}}\right) \div \left(\frac{x}{2} + \frac{1}{2x} - 1\right)$$

$$5. \text{ Solve: } (a) \quad \frac{x}{a} + \frac{y}{b} = 2. \\ bx - ay = 0.$$

$$(b) \quad \frac{x}{a} + \frac{y}{z} = 1.$$

$$\frac{x}{a} + \frac{z}{c} = 1.$$

$$\frac{z}{b} + \frac{z}{c} = 1.$$

$$6. \text{ Solve } (a) \quad .5x - 2 = .25x + .2x - 1.$$

$$(b) \quad \frac{x-a}{a-b} - \frac{x+a}{a+b} = \frac{2ax}{a^2-b^2}$$

7. Write out the rule for clearing an equation of fractions, and give the principle on which each operation depends.

8. There are two places 154 miles apart, from which two persons start at the same time, with a design to meet; one travels at the rate of three miles in two hours, and the other at the rate of five miles in four hours; when will they meet?

$$9. (a) \text{ Reduce to its simplest form: } \frac{1}{x + \sqrt{x^2 - 1}} + \frac{1}{x - \sqrt{x^2 - 1}}$$

$$(b) \text{ Extract the square root of } x^4 - x^3 + \frac{x^2}{4} + 4x - 2 + \frac{4}{x^2}$$

JUNIOR CLASS.

1. Define: 1—Factor. 2—Co-efficient. 3—Term. 4—Exponent. 5—An equation. 6—The root of an equation. 7—The degree of an equation. 8—L. C. M.

2. (a) Simplify $5x-3[2x+9y-2\{3x-4(y-x)\}]$. Ans. $41x-51y$.
 (b) If $a=1$, $b=3$, and $c=5$, find the value of

$$\frac{2a^3+b^3+c^3+a^2(b-c)+b^2(2a-c)+c^2(2a+b)}{2a^3+b^3+c^3+a^2(b-c)-b^2(2a-c)+c^2(3a+b)}$$
. Ans. 1.
3. (a) Reduce to their lowest terms by factoring,
 1. $\frac{x^2+6x-7}{x^2+10x+21}$. (Ans. $\frac{(x+7)(x-1)}{(x+7)(x+3)} = \frac{x-1}{x+3}$ Ans.
 2. $\frac{ax^2+12xy^2+4y^4}{9x^2-4y^4}$. ($= \frac{(3x+2y^2)(3x+2y^2)}{(4x+2y^2)(3x+2y^2)}$.)
 (b) Reduce to their lowest terms by the use of the G. C. D.:

$$\frac{x^3-4x^2+2x+3}{2x^4-9x^3+12x^2-7}$$
. (G.C.D. $= x^2-x+1$) Ans. $\frac{x-3}{2x^2-7x+7}$.
4. (a) Simplify $\frac{(a+b)^2}{a-b} \cdot \frac{ab+b^2}{a^2-ab}$. Ans. $\frac{(a+b)a}{b}$.
 (b) $\frac{a-b}{b} + \frac{2a}{a-b} - \frac{a^3+a^2b}{a^2b-b^3}$. Ans. $\frac{b}{1-b}$.
5. (a) Solve $\frac{3x-1}{5} - \frac{13-x}{2} = \frac{7x}{3} - \frac{11}{6}(x+3)$ Ans. $x=2$.
 (b) " $\frac{1}{x-a} - \frac{1}{x-b} = \frac{a-b}{x^2-ab}$. Ans. $\frac{2ab}{a+b}$.
6. (a) On what principle do you transpose a minus quantity from one member of an equation to the other?
 (b) Write out the rule for solving two simultaneous equations by addition or subtraction, and explain the principles on which you perform the operations mentioned in the rule.

ARITHMETIC.

SENIOR CLASS.

- X 1. (a) The sum of $\frac{3}{5}$ and $\frac{4}{3+2.25}$ is how many times their difference?
 (b) Divide \$460 into three parts which shall be to each other as $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$,
 2. A owns $\frac{5}{13}$ of a field, and B owns the remainder; $\frac{3}{4}$ of the difference between their shares is 5a. 3r. $16\frac{1}{2}$ p. What is B's share in acres?
 3. (a) What per cent. is gained by buying oil at 50 cents a gallon and selling it at 12 cents a pint?
 (b) If a horse is bought 20 per cent. less than \$50, and is afterwards sold at 25 per cent. more than he cost, at what price is he sold?
 X 4. If 12 pipes, each delivering 12 gallons a minute, fill a cistern in 3 hrs. 24 min., how many pipes, each delivering 16 gallons a minute, will fill a cistern 6 times as large in 6 hrs. 48 min.?

5. If a grocer's scales give only 15 oz. 4 dr. to the pound, out of how much money is a customer cheated who buys sugar to the amount of \$55.04?
6. (a) What sum of money must be put at interest @ 9 per cent. to yield \$100 a month?
(b) A man lays up \$2010 which is 40 per cent. less than his income. What is his income?
7. (a) What would be the length of one side of a cube occupying the space of a litre?
(b) We buy cloth by the yard; what unit of measure would we use if the metric system were adopted?
(c) What unit of weight would be used by retail grocers?
(d) In terms of what unit would coal probably be sold?
(e) Which is the greater, and how much: 10 decigrammes or 10 decagrammes?

FRENCH DENOMINATIONS.

8. A man buys 454 bushels of wheat for \$3 a bushel, and sells at \$8.75 a hectolitre, how much does he gain? (Litre is .908 qts., dry measure.

 L A T I N .

MIDDLE CLASS.

Cæsar.

1. Translate: Eorum fines Nervii attingebant: quorum de natura moribusque Cæsar cum quaereret, sic reperiebat: *Nullum* aditum esse ad eos *mercatoribus*: nihil *pati vini* reliquarumque rerum ad luxuriam pertinentium inferri, quod his rebus relanguescere animos et remitti virtutem *existimarent*. (a) Decline singular of *nullum*. (b) Rule for *mercatoribus*. (c) Subject of *pati*. (d) Rule for *vini*. (e) Rule for mode of *existimarent*.
2. Translate: Quamobrem placuit *ei*, ut ad Ariovistum legatos mitteret, qui ab eo *postularent*, uti *aliquem* locum medium utriusque colloquio diceret: *velle sese* de republica et *summis* utriusque rebus cum eo agere. (a) Rule for *ei*. (b) Rule for mood of *postularent*. (c) Decline singular of *aliquem*. (d) Government of *sese*. (e) Compare *summis*.
3. Translate: Hac re perspecta, Crassus, cum sua cunctatione atque opinione timoris hostes nostros milites alacriores ad *pugnandum* *efficissent*; atque omnium voces audirentur, *expectari* *diutius* non *oportere*, quin ad castra iretur, cohortatus suos, omnibus cupientibus, ad hostium castra contendit. (a) Is *pugnandum* a gerund or a gerundive? Why? (b) Rule for mood of *efficissent*. (c) Construction of *expectari*. (d) Compare *diutius*. (e) Construction of *oportere*.
4. Translate: *Genus* hoc est ex *essedis* pugnae: Primo per omnes partes

perequitant et tela *conjiciunt*, atque *ipso* terrore equorum et *strepitu* rotarum ordines plerumque perturbant; et cum se inter equitum turmas insinuaverunt, ex essedis desiliunt et *pedibus* proeliantur. (a) Decline plural of genus. (b) Give principal parts of *conjiciunt*. (c) Decline first three cases of the singular of *ipso*. (d) Decline singular of *strepitu*. (e) Rule for *pedibus*.

CLASSICAL JUNIORS.

1. (a) Decline *Hic* and *Qui*. *Singular*.
2. (a) Decline *Tristior*. *Plural*.
(b) Compare: *Malus*, *miser*, *parvus*, *bene*, *audacter*.
3. (a) Write infinitive and participles of *Moveo*, active.
(b) Give synopsis of *Audio*, first person singular, mood pass.
4. (a) Conjugate: *Rego*, fut. md. act.
(b) Conjugate: *Fero*, mp. subj. pass.
Translate into Latin:
- 5-6. (a) The enemy came with a large army to assault the camp.
(b) He came here for the sake of seeing his friends.
(c) (When this was known) *Cæsar* departed.
(d) Would that he had led forth all his forces!
(e) He said that he would come.
(f) I fear that he has not come.
(g) They rejoiced because they were going to assault the city.
(h) While these things were going on at Rome, the forces of the enemy assembled.
(i) If he had done this it would have been well.
(j) The consuls set out from Rome to Athens.
7. Translate: *Divitiacus* multis cum *bacrimis* obsecrare coepit, ne quid gravius in *fratrem* statueret: Scire se illa esse vera; sese tamen et amore fraterno et existimatione vulgi *commoveri*. Quod si quid ei a *Cæsare* gravius accipisset, cum ipse eum *locum* amicitiae apud eum teneret, neminem existimaturum non sua voluntate factum; qua ex re futurum, uti totiae Galliae animi a se averterentur.
8. Decline the nouns underlined in the singular number. Give principal parts of verbs.
9. Translate: *Locutus* est pro his *Divitiacus*; Galliae totius factiones esse *duas*; harum alterius *principatum* tenere *Æduos*, alterius *Arvernos*. Hi cum de potentatu inter se multos *annos* contenderent, factum esse, uti ab *Avernis* *Sequanis*que *Germani* *mercede* arcesserentur.
10. Principal parts of *locutus*; decline *duas*; decline plural of *principatus*; rule for case of *annos*; rule for case of *mercede*.

SENIOR CLASS.

1. Translate Virgil, Eclogue V., lines 24 to 31.
2. (a) How is the translation indicated by the quantity in line 1?
(b-c) Decline singular of *diebus* and *boves*.
(d-e) Decline plural of *curru* and *mollibus*.
3. Virgil *Æneid* IV., lines 65 to 73.
4. Scan lines 6 and 7, using all the marks. Give rules for each syllable in line 6.
5. *Æneid* V, lines 268 to 280.
6. Construction of *tempora*, *remis*, and *ordine*. Inflect *ibant* and *liquit*.
7. Ovid, *Met.* 8, lines 658 to 670.
8. Principal parts of *subdita*, *sustulit*, *tersere*, *coacti*, and *illita*.
Translate into Latin:
- 9-10. (a) There are some who seem to be always fortunate.
(b) I would write more to you, if I had more leisure.
(c) Ambassadors were sent to Cæsar to say that the town had been taken.
(d) Cæsar spent much time in reading orators and poets.
(e) What is better than a soul endowed with virtue?
(f) They say that Catiline would not have gone out of the city if he had not feared the consul.
(g) I wonder why philosophers disagree upon the most important subjects.
(h) Cæsar was put to death in his fifty-sixth year, on the Ides of March.
(i) From Geneva we hastened with forced marches into Italy.
(j) It is the interest of all to obey the laws.

 ENGLISH COMPOSITION.

JUNIOR CLASS.

1. (a) Give two rules for the use of the comma, and one for the semi-colon.
(b) Correct: "whatever happens Mary Exclaims Elizabeth I am the wife of the prince of Spain crown rank life all shall go before I will take any other Husband."
2. Write a letter applying for a situation in any business.
3. State the difference in meaning between the following synonyms, and write brief sentences illustrating the right use of the words: (a) Blind, Tie;

(b) Rural, Rustic; (c) Petition, Request; (d) Correct, by substituting the proper synonyms: He who undertakes anything of importance will find that there are difficulties to be encountered, impediments to be surmounted, and obstacles to be removed. (e) The wrath of Achilles was not to be mitigated.

4. Combine the following statements into a complex sentence: The nobles had risen in revolt. They were stirred up to rebellion. They were stirred up by the overbearing conduct of the Bishop of Winchester. The King secretly hated the Great Charter. The Bishop found this out. The Charter had been forced from the King's father. The Bishop did his utmost to confirm this dislike of the King. The King showed a preference to foreigners over the English. The Bishop also did his best to confirm the King in this preference.

5. "Their harmony foretells a world of happiness."

(a) Change the above to the passive form.

(b) " " to an exclamatory sentence.

(c) " " to an interrogative sentence.

(d) Change to a complex sentence: "The sun shines."

(e) Change to a simple sentence: "When morning began to dawn, our ship struck upon a sunken reef, near the rock-bound coast."

6. Combine into a simple sentence the following: The Federalists secured the election of John Adams. Washington refused to be elected President. Adams was a leading member of the Federalist party. He was already distinguished by his political services during the revolution.

7. Change the following from the common to the rhetorical order: (a) He is a free man whom the truth makes free. (b) One who dwells by the castled Rhine spoke full well in quaint old language when he called the blue and golden flowers, "stars that shine in the earth's firmament."

8. Express by denying the contrary: (a) John is a good boy. (b) Jennie is a pretty girl. Express by euphemism: (c) You lie. (d) He is a thief. Express by circumlocution: (e) The sun shines.

9. (a) In sentence making, at what three things should we aim? (b) What kind of words should be preferred? (c) Define circumlocution; define redundancy; define tautology.

10. Express in five ways: Gold is the most precious metal.

GERMAN.

MIDDLE CLASS.

1. Translate into German: Charles has broken his leg. My brother paid three shillings a pound.

2. State three cases in which the sign of the genitive *of* is to be translated *von* in German.

3. Translate: He had five children, all of whom died in their infancy. Take another glass of wine. He has no more money.
4. What conjunctions require the verb in the subjunctive mood? Give two examples.
5. When is the infinitive in German used with *zu*, and when without *zu*? Give the principal rules.
6. When does the verb in German precede its subject? State three cases, and give an example for each.
7. Give the different meanings of the preposition *about* in German.
8. Translate *Schule- und Hausfreund*—page 225, second paragraph.
9. Translate *Schule- und Hausfreund*—page 235, first paragraph.
10. Dictate: Page 241, the last paragraph but one, *Bald*—*Dienste*.

JUNIOR CLASS.

1. Decline: *Der Schüler, der Fels, der Wolf, die Pflanze, Heinrich*,
2. Translate into German: I was in the street during the rain. The boys go through the wood. The table stands near the window.
3. Form the plural of *das Haus, das Bett, die Hand, der Bauer, der Staat*.
4. Decline: *welcher* and *welche*, singular and plural.
5. Write the imperfect indicative simple of *haben, sein, werden, suchen*.
6. How do you form the negative and interrogative of a verb? Illustrate.
7. Compare: *alt, hoch, gut, reich, viel*.
8. Dictate page 283, *Otto's Grammar*, first paragraph, four lines one-half.
9. Translate 259, *Otto's Grammar*, third paragraph, till *zusammen*.
10. Translate 355, *Otto's Grammar*, seven lines, to *verlangte*.

FRENCH.

MIDDLE CLASS.

1. Write the possessive pronouns for the masculine singular and the feminine plural.
2. Translate: One of his sisters is married. Which is it? Of what do you speak? What does he ask?

3. What kinds of verbs take the auxiliary *être* in their compound tenses, and which the auxiliary *avoir*. Write two sentences to illustrate.
 4. Write first person singular and plural of the present indicative, simple and compound preterite first future, second conditional compound of the verb *se couche*.
 5. Translate: I saw him two months ago. It is very cold. The boy must work.
 6. Write two sentences in which *ne* is to be used without *pas* or *point*, and one in which *pas* is to be used without *ne*.
 7. Write the second person singular of all simple tenses of the verb *dire*, *craindre*, *connaître*, *vivre*, *dormir*.
 8. Translate page 30, second paragraph. Dumas-Napoleon.
 9. Translate page 37, beginning at 21. Dumas-Napoleon.
 10. Dictate page 36, lines 24-30. Dumas-Napoleon.
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JUNIOR CLASS.

1. What proper names take the article in French?
2. Write the second person of the first future of the verbs *avoir*, *être*, *parler*, *choisir*, *mordre*.
3. Translate into French: Two thousand four hundred sixty-seven; five hundred; Henry the Fourth, King of France.
4. How do you form the feminine and plural of adjectives? Give three examples for each case.
5. What is the difference between *un pauvre enfant* and *un enfant pauvre*? *Un brave homme* and *un homme brave*? *Un honnête homme* and *un homme honnête*?
6. Compare the adjectives, *grand*, *bon*, *marvais*, and translate: Mary is the happiest girl in the world.
7. Which are the primitive tenses and which are derived from each?
8. Translate into English, page 243, first paragraph, Otto's French Grammar.
9. Translate into English, page 288, first paragraph, Otto's French Grammar.
10. Dictate page 144, first paragraph, Otto's French Grammar.

EXAMINATION OF SCHOLARS OF COSMOPOLITAN SCHOOLS IN FRENCH AND GERMAN.

FIFTH GRADE.

One Hundred Credits.

1. Specimen of Penmanship (5 lines)	15 credits.
2. Reading.....	25 "
3. Grammar (5 questions, 4 credits each).....	25 "
4. Dictation	25 "
5. Translation	10 "
	<hr/>
	100

SIXTH GRADE.

One Hundred Credits.

1. Specimen of Penmanship (5 lines)	20 credits.
2. Reading.....	30 "
3. Grammar (4 questions, 5 credits each).....	20 "
4. Copying (5 lines).....	20 "
5. Translation.....	10 "
	<hr/>
	100

SEVENTH GRADE.

One Hundred Credits.

1. Specimen of Penmanship (5 lines).....	30 credits.
2. Reading and Translating (orally).....	40 "
3. Copying (5 lines).....	30 "
	<hr/>
	100

INSTRUCTIONS FOR TEACHERS.

- (a) One-quarter of a credit off for every misspelled word in dictations of fifth grade papers.
- (b) One-half of a credit off for every misspelled word in copying of sixth grade papers.

EIGHTH GRADE.

One Hundred Credits.

1. Writing.....	50 credits.
2. Reading.....	50 “
	<hr/> 100

GERMAN.

FIRST AND SECOND GRADES.

One Hundred Credits.

1. Specimen of Penmanship (about 5 lines)	10 credits.
2. Reading.....	20 “
3. Grammar (10 questions, 5 credits each).....	50 “
4. Dictation and Translation	20 “
	<hr/> 100

THIRD AND FOURTH GRADES.

One Hundred Credits.

1. Specimen of Penmanship (about 5 lines)	10 credits.
2. Reading.....	25 “
3. Grammar (8 questions, 5 credits each)	40 “
4. Dictation and Translation.....	25 “
	<hr/> 100

INSTRUCTION TO TEACHERS.

One-quarter of a credit off for every misspelled word in the dictation.

FRENCH.

FIRST GRADE.

One Hundred Credits.

1. Dictate Sec. 8, page 26, Fasquelle's Napoleon. Les hauteurs desquelles, etc—to Sont-ce là nos batteries?
2. Write the feminine of blanc, vieux, actif, sec, and facile.
Compare haut and bon.
Translate—He knows it. Give them to me.

3. Translate—These roses are very pretty. He gives it to me, and I give it to her. I must finish my lesson, for it is already three o'clock. Who said that? It was I. Have you my pen, or yours?

4. Form adverbs from *doux*, *decent*, *leger*.

Write the present tense of the verb *se promener*.

Write the compound of the present of the same verb.

5. Translate—Do you hear me? Yes, I hear you. Yesterday it was very cold, but it is warm to-day. Where is your mother? She is not at home. Who has broken the stick? Not I. I should build a larger house if I were rich.

6. Write the primitive tenses of *dire* and *lire*.

7. Write a synopsis of *venir*.

8. Form an affirmative, an interrogative, and a negative sentence, with the verbs *aller* and *partir*.

9. Translate—Quand j'avais l'honneur d'être simple lieutenant en second d'artillerie, reprit-il en souriant je restais trois années en garnison à Valence. J'aimais peu le monde et vivait très-retiré. Un hasard heureux m'avait logé pres d'un libraire instruit, et des plus complaisants. J'ai lu et relu sa bibliothèque pendant ces trois années de garnison, et je n'ai rien oublié même des matières qui n'avaient aucun rapport avec mon état.

10. Write the Infinitive, Present and Past Participles of *souriant*, *vivais* and *avait logé*.

SECOND GRADE.

One Hundred Credits.

1. Dictate on page 172, Second Reader, *Le décousu*, etc., to en acheter une autre.

2. Give the feminine of *long*, *frais*, *nouveau*, *leger* and *appliqué*.

3. Translate; These roses are pretty. I give them to the girl. Give them to me. Have you my pen or yours? Who did that? It was I.

4. Form adverbs from *heureux*, *poli*, *constant*. Write the present and compound of the present of *se promener*.

5. Translate: Do you hear me? To whom do you speak? Are you cold? No, it is warm to-day. Who has broken the chair? It was I. Where is your mother? She is not at home.

6. Write a synopsis of *avoir* in the first person plural.

7. Write the future of *donner*; the subjunctive present of *finir*; the preterit of *recevoir*; the present and conditional present of *vendre*.

8. Form an affirmative, an interrogative and a negative sentence with each of the verbs *donner* and *finir*.

9. Translate: Les merveilleux progrès du jeune Adrien ne tardèrent pas à exciter la jalousie des autres étudiants, surtout celle des plus riches et des

moins studieux. Ils decouvrirent bientôt que tous les soirs à la nuit tombante, Adrien quittait furtivement l'université, qu'il prenait constamment la même direction et ne rentrait jamais que longtemps après minuit.

10. Write the infinitive, the present participle and the past participle of *tardèrent*, *quittait* and *exciter*.

THIRD GRADE.

One Hundred Credits.

1. Dictate on page 91, Second Reader, Et alors elle raconta to Dieu a créés.
 2. Write the following in the plural: la pomme, l'enfant, le chapeau, l'œil, l'animal. With what words is *avoir* used idiomatically?

3. Translate—I have bread and beer. Have you good meat? Are you warm? He is cold. What is the matter with you?

4. Translate—I have not my cheese. I have not seen that girl. Which flowers have you? Have you not spoken to that boy? Has she brought those apples?

5. Write the future, and subjunctive present, of *donner*.

6. Write the imperfect of the indicative, and the preterite of *finir*.

7. Translate—I have bought two pounds of cheese. My sister has a gold ring. I am going to Italy. Have you a headache? To-day is the tenth of May.

8 and 9. Translate—Ils arrivèrent ainsi à une grande île qui divisait la rivière en deux bras, et comme la barque s'arrêta dans les saules ils furent naturellement portés à terre, ou tous deux sautèrent à leur grand contentement. Après avoir attaché la corde du bateau à un arbre, ils se mirent à parcourir l'île dans l'espoir d'y trouver un bureau de poste où ils pourraient écrire à leur tuteur de les envoyer chercher.

10. Write the infinitive; the past and the present participles of *arrivèrent* and *divisait*.

FOURTH GRADE.

One Hundred Credits.

1. Dictate page 58, Second Reader. Et leurs yeux—commode pour dormir.

2. Change to the plural, l'arbre, l'œil, le cheval, le ciel, le boeuf, le chapeau, le livre, l'enfant, le fils, le nez.

3. Write the present and future tenses of *être*.

4. Translate the following nouns, and place the definite article before each: table, dog, child, horses, book.

Place the indefinite article before pencil, apple, chair, dress, coat.

5. Translate—Is he hungry? Are you not thirsty? I am cold. We are afraid. You were wrong.

6. Write the present of *penser*. Write, also, the imperfect of *avoir*, and place a different noun after each person.

7. Translate and write in the singular and plural, the grammar, the orchard, the boy, the peach, and the slate.

8. Translate—The good boy. The good girl. The little book. The little pen. The pretty flowers. The pretty birds. The big tree. The big house. The beautiful eyes. The beautiful dresses.

9. Translate—Is your uncle rich? Are you not hungry? They had not the shoes. Will you have the pretty dress? She has not sung.

10. Translate—*Par une belle matinee d'été, la maman et le petit garçon qui s'étaient levés de bonne heure tout exprès, repassaient de leur mieux la page de grammaire qu'il fallait réviser à la leçon de ce jour-là.*

FIFTH GRADE.

One Hundred Credits.

1. Dictate page 101, *Beginners' French Reader*. Mais Charles—Je viens du village.

2. Place the definite articles before *école, enfants, horloge, main* and *soleil*.

3. Write in the plural, *la fleur, le cheval, le chapeau, la maison, la voiture*.

4. Write out the following sentences and correct the adjectives that are wrong:

J'ai un joli crayon et une joli plume.

Votre maison est très-grand.

Vous avez des souliers neuf.

Elle a une robe neuf.

5. Translate into English—*Il n'a pas faim. Il fait très-froid aujourd'hui. Le petit oiseau a peur. Vous avez tort. Je n'ai pas froid.*

6. Translate into French—*What o'clock is it? It is three o'clock. How old are you? I am ten years old. Where is your book?*

7. Translate into French—I have a pen. He had a slate. We shall have a house. — is sick.

8. Write the present tense of *avoir*, with a noun after each person.

9. Write the same tense interrogatively.

10. Translate—*Le petit Jacques faisait paître ses moutons le long d'un chemin. Un monsieur vient à passer, monté sur un beau cheval. Le monsieur, apercevant une fleur rare, arrêta son cheval et en descendit pour cueillir la fleur.*

SIXTH GRADE.

One Hundred Credits.

1. Dictate page 20, Beginners' French Reader. Sortons—de rosée.
 2. Put the definite article before brebis, crayon, papier, oiseau, jours.
 3. Write in the plural, l'homme, le cheval, l'oiseau, l'enfant, la chambre.
 4. Translate—

Have you a garden?
We have a house.
Henry has a pretty hat and Mary has a pretty dress.
Where is your brother?
 5. Translate—Les petits enfants étaient bien contents de se tenir dans la bonne chambre chaude; mais les petits oiseaux n'out pas de chambre chaude.
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SEVENTH GRADE.

One Hundred Credits.

1. Translate into English—

Avez vous perdu un livre?
Louise a trouvé un canif.
Vous avez une bonne mère.
Ma soeur a une jolie rose.
Votre maison est très grande.
2. Translate into French—

The book is good.
Your father is my uncle.
Our garden is large.
Your pen is good.
My mother is little.
3. Place the proper definite article (le, la, l') before each of these words: chapeau, montre, enfant, lettre, table.
4. Place the proper indefinite article (un or une) before each of these chambre, chat, fleur, chien, robe.
5. Dictate l'homme, la femme, le pied, la main, la mois, la chaise, le jour, la tulipe, le crayon, la bague.

GERMAN.

FIRST GRADE.

Ten Questions. Five Credits Each.

1. Give the principal parts of *abnehmen*, *dürfen*, *wissen*, *gehen*, *bitten*, *nachdenken*, *unterrichten*, *regieren*, *laufen*, *essen*, *berechnen*.

2. On page 350 (*Gründung Roms*) § 4, find the first five transitive verbs and their objects.

3. On page 356 (*Karthagos Fall*) § 3, find the cases of *Macht*, *Römern*, *Verderben*, *Rathsherrn*, *Volks*, and give the reasons why.

4. Find on page 358, (*Julius Cäsar*):

First two adverbs.

“ “ conjunctions.

“ “ assonant verbs.

“ “ dissonant verbs.

“ “ prepositions.

5. Tell what cases the following prepositions govern, and which of them govern Dative and Accusative: *Innerhalb*, *nach*, *in*, *durch*, *statt*, *wegen*, *um*, *für*, *vor*, *von*.

6. Express the sentence: *Du schlägst meinen Sohn* in all the tenses of the Indicative Subjunctive, Conditional, and Imperative.

7. Express this sentence in the same tenses and moods of the passive voice.

8. Allen denen, die diesem Befehle gehorchen, verspreche ich meine Gnade. Classify the pronouns of this sentence.

9. Decline *Mancher brave Soldat*. *Mein neues Kleid*. *Eine tiefe Stille*.

10. Translate—

a. Greece is separated from Asia Minor by the Archipelago.

b. Hector, a king's son, was the commander of Troy.

c. Of the returning Greeks, many did not reach their homes again.

d. Solon became the savior of Athens, and Lycurgus was the law-maker of Sparta.

e. Carthage was founded by Dido, who fled from her revengeful brother.

For Dictation and Translation:

11. Teachers will dictate § 2, page 356 (*Karthagos Fall*.) 10 Credits.

12. Have this dictation translated into English. 10 Credits.

SECOND GRADE.

Ten Questions. Five Credits Each.

1. Write down in singular and plural, from memory, ten nouns, with the following suffixes: *heit*, *teit*, *in*, *den*, *lein*. (Two nouns to each suffix.)

2. Decline: Welcher tapfere Held. Mein gutes Schwert. Guter Thee.
3. What cases of the plural have in the declension of nouns always the same terminations?
4. On page 411 (Oliver Cromwell) find the subjects of the first three lines (principal and dependent clauses).
5. On page 415 (Karl XII), § 2, find objects of besiegte, dictirte, schlug, verstanden, jagte.
6. Derjenige, welcher mit jenen Becher bringt, darf ihn sein Eigenthum nennen. Classify the underlined pronouns.
7. Principal parts of fliegen, bieten, schneiden, siegen, schreiben, binden, singen, sterben, geben, hoffen.
8. Express the sentence: Karl schlug die Russen bei Narva in all the tenses of the indicative mood.
9. Page 416, § 3, (Rußland) find cases of Theil, Jugendzeit, Schweizer, Jung, Europa.
10. Translate into German: Charles XII. was only fifteen years old when his father died. Peter's ambitious sister ruled in his name. After the death of Charles I., Cromwell was the most powerful man in England. He called himself Protector of the English Republic. Charles the Great was a handsome, tall man; his bodily strength was celebrated; his dress was plain; wife and daughters had spun and woven it.
11. Teachers will dictate first eight lines of § 5, Gustav Adolf. 10 credits.
12. Have this dictation translated into English—Nun war der Kaiser——linken Arm. 10 credits.

THIRD GRADE.

Eight Questions, Ten Credits Each.

1. Place the proper definite article before the following nouns and give the proper plural thereof — Kirschbaum, Nacht, Kirsche, Mensch, Thaler, Schwester, Dach, Schiff, Hut.
2. State in what cases the first five nouns (Nabe, Rinder, Vaters, Grasplatz, Garten) page 163, lesson 160, are.
3. Decline Das weite Meer. Mein fleißiger Schüler, frische Milch.
4. Give the German for—to us, him, of her, you, to them.
5. Express the sentence, „Der Mann schickt seinen Sohn“ in all the tenses of the Indicative Mood.
6. Give the German for—he has, you have been, he will become, I have been, he has had, we had become, they will have become, they are, he became.
7. Translate—I am more thirsty than you. Have you seen the nephew of my uncle? The oldest wine is the best. He has given the book to my mother. The house of my neighbor is large and beautiful.

8. Give the feminine appellations of the following words: Der Onkel, der Bruder, der König, der Lehrer, der Nefse, and form one diminutive of each of the following nouns: Baum, Mutter, Schiff, Korn, Vogel.

9. Teachers will dictate of lesson 151, page 154, the second paragraph: Vor mehr als—down to—seinen einzigen Thaler.. 15 credits.

10. Have this dictation translated into English. 10 credits.

FOURTH GRADE.

Eight Questions, Five Credits Each.

1. Place the proper definite article before the following nouns: Thier, Fuchs, Körper, Schule, Schulhaus, Blume, Landmann, Frucht, Reisende, Hufeisen.

2. Form the proper plural of these nouns.

3. Decline in both singular and plural: Der Knabe, das Haus, ein Mann.

4. In what cases are the underlined words: Die Glieder des Körpers wurden überdrüssig, dem Magen zu dienen und saßen den Vorsatz, das nicht mehr zu thun. Das Haus der Frau brannte heute Nacht ab.

5. Express the sentence: Der Mann schreibt, in the principal tenses. Translate the sentence: This boy works always, and give principal tenses.

6. Give a synopsis of sein, second person singular, and one of werden, third person singular.

7. Compare hoch, schön, alt, Mein, gut.

8. Find in the sentence: Hat der Mann dem Knaben einen Thaler gegeben? subject, predicate and object.

3. (a) Translate into German: He has seen the son of the Englishman.
Do you become a merchant? No, I am becoming a brewer.
Who has the cane of the soldier? Have you been in the country? 5 credits.

(b) Teachers will dictate of lesson 109, page 109, Granert's Reader, the first seven lines of the second paragraph, Adolf lebte—Gewalt fort. 10 credits.

10. Have this dictation paragraph translated into English. 10 credits.

FIFTH GRADE.

Five Questions, Five Credits Each.

1. Conjugate „ich hatte“ and „ich bin gewesen“ in the three persons of the singular and plural.

2. Place the proper definite article before the following nouns, and give the proper plural thereof: Kind, Haus, Knabe, Dorf, Kasse, Mädchen, Pferd, Stadt, Lamm, Baum.

3. Compare klein, alt, schön, gut, dick.

4. Tell what kind of words the underlined words are: Der fleißige Knabe lernt seine Aufgaben.

5. Translate into German: He is rich, but you are poor. Has the tailor had (any) cloth? What has the boy found? He has found much money. I have gold and silver, but my sister has silver and no gold.

For dictation and translation:

6. Teachers will dictate § 1, 2, 3, of lesson 31, page 30, An einen Bach—mir herunter. 25 credits.

7. Translate this dictation into English. 10 credits.

SIXTH GRADE.

Four Questions, Five Credits Each.

1. Make sentences of Vater, gut; Brief, lang; Uhr, gehen; Kinder, lernen; Vogel, Baum.

2. Give the plural of der Tisch, die Maus, das Haus, eine Uhr, das Band.

3. Give the German for eye, ear, nose, mouth, lip, hand, finger, hair, back, foot.

4. Our sister Louisa is very diligent. My brother is older than I. You are poorer than we. We are not sad. A false cat and a false dog.

Copy on page 59, lesson 100, Fritz Oberlin, the first paragraph. 20 credits. [$\frac{1}{2}$ credit off for each wrong word.]

SEVENTH GRADE.

Copy Lesson 47, page 38. 30 credits. [$\frac{1}{2}$ credit off for each wrong word.]

TEACHER'S EXAMINATION IN DRAWING.

THIRD AND FOURTH GRADES.

Standard, 100. Required per cent., 75.

1. What is a point, a line, a surface, a solid? (5 credits.)
2. What is meant by vertical, horizontal and circular repetition. (2 credits.)
3. Are the sides of concentric figures always parallel? Give the meaning of the word concentric. (2 credits.)
4. Draw a curve concave to a vertical line. (3 credits.)
5. Draw symmetrical simple curves convex to an oblique axis. (3 credits.)
6. Draw a simple curve convex to a vertical line. (3 credits.)
7. Draw a vertical line perpendicular to a horizontal line. (5 credits.)
8. What is the meaning of conventionalize, applied to design. (5 credits.)
9. What directions would you give concerning book and body positions; and why is the position for drawing not the same as for writing? (5 credits.)
10. Make a sketch of a circle and divide it into as many parts as you can remember, writing their names in each. (5 credits.)
11. Draw from my dictation upon paper. (25 credits.)
12. Draw upon the blackboard, from your own sketch, the figure dictated by me, about two feet in diameter. (19 credits.)
13. Write how you would dictate the figure upon the blackboard. (18 credits.)

FIFTH AND SIXTH GRADES.

Standard, 100. Required per cent., 75.

1. What important directions would you give to a class just beginning to use a lead pencil and paper? (5 credits.)
2. What directions would you give regarding rapidity of execution? (5 credits.)
3. Upon what do you think the success of a class in a great measure depends? (5 credits.)
- 4. Before erasing a figure from the board, which has been used as a drawing lesson, what use should be made of it? (3 credits.)
5. What directions would you give as to the proper way to use rubber? (4 credits.)
6. Draw three concentric squares, one three inches in diameter. (3 credits.)

7. Draw perpendicular lines in different directions. (3 credits.)
8. Make sketches of four different kinds of triangles, writing their names in each. (5 credits.)
9. What is the meaning of sketching in anything? What is lining in a drawing? (5 credits.)
10. Draw from my dictation the following figure. (25 credits.)
11. Draw upon the blackboard the figure dictated by me, from your own sketch, two feet in diameter. (19 credits.)
12. Write the dictation of the figure upon the blackboard, as you would give it to your class. ($\frac{18}{100}$ credits.)

SPECIAL REPORT OF THE PRINCIPAL OF THE DRAWING DEPARTMENT.

INDUSTRIAL DRAWING.

To Henry N. Bolander, Esq., Superintendent:

At the Twelfth Annual Exhibition of the Mechanics' Institute an opportunity was given the public to see the progress made by the pupils of the public schools in industrial drawing.

Over two thousand specimens were exhibited, arranged in divisions representing the drawings from the High School to the Sixth Grade.

The work of the Girls' High School consisted of specimens of geometrical perspective, problems in plane geometry, worked out in ink, applied design in pencil, color, and India ink. The designs were for carpets, oil cloths, pin cushions, book covers, cotton and other prints, centre pieces, frescoes, Mosaic work, lace curtains, wall paper, etc.

The First, Second and Third Grades of Grammar Schools furnished designs for carpets, oil cloths, wall paper, borders, rosettes, etc., and problems in plane geometry, worked out in ink, with instruments.

The Fourth, Fifth and Sixth Grade specimens were illustrations of the progress made in ornamental design, from grade to grade.

This exhibition gave unqualified satisfaction. While all the work bore evidence of careful instruction on the part of the teachers, that of the lower grades was remarkably good, giving promise in the future of a high standard of proficiency.

The interest manifested by the Managers of the Mechanics' Exhibition (composed, as it is, of men of practical views, representing various business interests of the State) in the progress of the scholars in this essentially useful branch of education is looked upon as a public endorsement of the value of the study as part of a common school education.

The wealth and prosperity of a nation depend as much upon the skilled labor it can produce as upon the money of the capitalist. Skilled labor creates wealth, which in time should provide intelligent workmen, by a judicious investment in the early education of those who are to enter the various departments of industry.

It is to be regretted that the study of drawing was discontinued in the Boys' High School. It was owing to this circumstance that no specimens were exhibited from that school. By the recent action of the Board of Education, however, it is again made part of the course of instruction, and compulsory.

While acknowledging the liberality of the Board of Education in providing models, manuals, etc., for use in this department, there are still other things required, the need of which is felt particularly by special teachers of the High Schools, where the drawing is of an advanced nature, and the instruction dependent upon the facilities given to impart it.

A separate room arranged for drawing is indispensable in High Schools, where scholars should be permitted to select any special branch of the study. It is impossible to teach light and shade properly from real models, with cross lights in the room; neither is it possible to teach more than the outlines of casts, etc., which depend upon light and shade to develop their various forms. Landscapes, figure, flower, and drawing in color, can only be taught in a very unsatisfactory manner.

Books of reference, by good authors, on the different styles of drawing, are much needed for the use of the teachers of the department, many of whom are taking quite an interest in the study; but particularly are they required for the use of special teachers.

The Board of Education have not refused to grant these things—they have not been asked for. It has been thought prudent to await the time, fast approaching, when drawing will take a more prominent place in our educational system, and when, to keep pace with other cities, San Francisco will readily provide all the necessary means.

The regular teachers of the Third, Fourth, Fifth and Sixth Grades are justly entitled to praise for the interest they manifest in carrying out the directions of the principal of drawing, whom they meet once in two weeks for the purpose of having the lessons explained, which they afterwards give to the scholars of their respective classes. No special teachers of drawing are employed below the Second Grade.

Ornamental design is accepted as an excellent means of training the eye and of giving good practice in free-hand and instrumental drawing. It does not, however, cover all the ground. It is only wise to continue it beyond a certain limit in the case of decided preference expressed by the scholars. Drawing should be taught in such a way as to cover two important points, viz.: to make a scholar who drops it abruptly feel that he knows something about it, and at the same time to arrange the instruction with a view to progressive and advanced work in the High Schools.

Now, as many do not enter the High Schools, but finish their education on

graduating from the First Grades in the Grammar Schools, it has been deemed advisable to cut off designing entirely from the boys' course in First Grades, and to substitute the use of the drawing board, T square and triangle, to give some knowledge of scales and how to use them, and also to make simple plans and elevations of buildings, and to draw from objects. The change has pleased both teachers and scholars, as being of more practical utility than a continuance of ornamental work, which may or may not be of service to them in after life.

Smith's System of Industrial Drawing has been successful in the public schools of San Francisco. It has fully realized all that has been claimed for it. Thousands of children have been taught to make fair designs on correct principles; but whether this one branch should be taught to the exclusion of all other kinds of drawing from the lower grades, seems to be an open question.

HUBERT BURGESS,
Principal Drawing Department of the Public Schools.

READING.

DIRECTIONS FOR TEACHERS OF PRIMARY AND GRAMMAR GRADES.

Without sense—perception no percepts, without percepts no concepts, without concepts no thinking, without thinking no speaking, and without speaking no writing.

EIGHTH GRADE.

Exercise daily from ten to fifteen minutes.

FIRST STEP.—Lead children to distinguish the different words in a sentence.

The boy is at home. How many words? Five. The children study their lessons in school. How many words? Seven. Continue this exercise until children are able to tell the number of words in a sentence readily.

SECOND STEP.—Lead children to distinguish the different syllables in words, and tell the exact number.

THIRD STEP.—When able to distinguish readily the different syllables in words, lead children to recognize and reproduce, separately and distinctly, each sound in words like the following:

At, fat, hat, mat, rat, cat, chat, pit, sit, hit, dot, got, spot, cut, nut, shut, lad, bad, mad, kid, fan, than, pen, win, thin, shin, slab, crab, shrub, quick, thick, block, flock, ham, from, jar, storm, drank, flax, hang, rang, sang, sing, spring, flash, smash, fish, valve, none, azure, whit, which.

FOURTH STEP.—When able to distinguish and reproduce the different sounds in syllables or words, proceed to pronounce slowly and very distinctly again the word, at; request children to give the number of the different sounds, and show by what sign or letter each one is represented.

NOTE.—It is presumed that the class has been exercised simultaneously on the elements and principles of the small letters.

DICTATION EXERCISE.—Write upon your slates the sign or letter for the sound a, t; t, a, each one separately, side by side. Now write them again and join them. Read what you have written on your slates.

In the same manner are treated the words, mat, fat, hat, rat, cat, chat.

DICTATION EXERCISE.—Write upon your slates the sign for the sounds, m, f, h, r, c, ch, t, a. Proceed slowly, and vary greatly these dictation exercises. The teacher may give the sounds and the children write the letters, or the teacher may write the letters on the blackboard and let the children give the sounds. Also, allow children to compose words in which the given letters occur.

§ 1. Treat in the same manner, like *at*, the following syllables and words: *et*—get, let, met, net, pet, set, wet, yet; *it*—bit, fit, lit, pit, sit, hit; *ot*—cot, dot, got, hot, not, pot, spot; *ut*—but, cut, hut, nut, rut, shut.

§ 2. *ad*—bad, had, lad, glad, mad, sad; *ed*—bed, fed, led, bled, fled, red, shed; *id*—bid, did, hid, kid, rid, lid, slid; *od*—hod, nod, pod, sod, rod, shod, cod; *ud*—bud, cud, mud stud.

§ 3. *an*—can, man, ran, tan, fan; *en*—hen, men, pen, ten, then, when; *in*—bin, tin, fin, pin, win, thin, chin, shin; *un*—fun, gun, run, shun, stun.

§ 4. *ab*—cab, dab, slab, crab; *eb*—web; *ib*—bib, nib; rib, crib; *ob*—hob, mob, sob, bob, rob, cob; *ub*—tub, rub, grub, scrub, cub.

§ 5. *ack*—back, black, jack, sack, tack, stack; *eck*—deck, neck, peck, speck, check; *ick*—dick, brick, quick, wick, chick, thick; *ock*—lock, block, clock, flock, mock, rock; *uck*—duck, luck, suck, tuck, stuck.

§ 6. *ess*—less, bless, mess, chess, cress, dress; *iss*—miss, kiss; *uss*—puss, muss.

§ 7. *am*—ham, jam, ram, sham, yam; *em*—hem, them, stem; *im*—him, brim, swim; *om*—tom, from; *um*—hum, gum, sum, rum, drum.

§ 8. *all*—shall; *ell*—bell, fell, sell, tell, well, shell, smell; *ill*—bill, kill, mill, till, chill, fill, will, still; *ull*—dull, gull.

§ 9. *ap*—lap, rap, trap, strap, chap, map; *ep*—step; *ip*—lip, hip, ship, slip, rip, trip; *op*—top, stop, shop, prop, hop, mop, chop, pop; *up*—cup, sup, pup.

§ 10. *ar*—bar, jar, car, star; *er*—her, fern, herb; *ir*—fir, sir, stir, bird, shirt, dirt; *or*—for, nor, storm; *ur*—cur, fur, burn, hurt, church.

§ 11. *ank*—bank, hank, drank, thank, blank, tank; *ink*—brink, drink, think, sink, wink, shrink; *unk*—drunk, junk, sunk, trunk.

§ 12. *ax*—tax, wax, flax; *ex*—vex, next, text; *ix*—fix, mix, six; *ox*—box, fox, cox; *ux*—flux.

§ 13 *ang*—bang, fang, hang, rang, sang; *eng*—length, strength; *ing*—sing, bring, string, thing, living; *ong*—long, song, strong; *ung*—snug, hnng, rung, swung, sprung.

§ 14. *ash*—hash, cash, dash, flash, gash, mash, rash, smash, trash, thrash; *esh*—mesh, fresh; *ish*—dish, fish, wish; *ush*—gnsh, hush, rush, brush, crnsh, flush, blnsh.

§ 15. *ag*—bag, rag, drag, wag, flag, fag; *eg*—beg, keg, leg, peg; *ig*—big, dig, gig, pig, wig, fig, jig; *og*—dog, fog, frog, flog; *ug*—dug, jug, rug, plng, hug, slng, mug.

§ 16. First dictate the following words without the final e. When written, let the final e be added, and now explain the difference in pronunciation and meaning of the words:

Hat-e, fat-e, mat-e, mad-e, shad-e, rag-e, lac-e, sham-e, can-e, man-e, tap-e, gap-e, star-e, her-e, bit-e, quit-e, whit-e, mic-e, nic-e, hid-e, din-e, shin-e, win e, fin-e, pin-e, fir-e, sir-e, rip-e, wip-e, not-e, dot-e, rob-e, ton-e, hop-e, cub-e, tub-e, duck-duk-e, us-e.

GENERAL REMARKS ON THE TREATMENT OF READING LESSONS.

APPLYING TO ALL GRADES.

READING, SPEAKING, SPELLING, WRITING.

- (a) *Allow pupils from five to ten minutes to study the lesson.*
- (b) *The teacher reads the lesson loud and distinctly to the class.*
- (c) *Discussion of the spelling and the meaning of the words.*

The discussion of the proper spelling of words interests children exceedingly; and they point out most cheerfully those words of a reading lesson which require special attention. Every pupil who points out a word must state the reason why he thinks the word is difficult to spell. This exercise affords teachers many opportunities to adduce paronyms and synonymous words, and to show the difference in their meaning and their proper use. In higher grades the pupil's attention should also be directed to the formation of derivative words by means of prefixes and suffixes; and in the lower grades

pupils should be induced to point out the terminations, and their effect upon words. Tabulated words should not be defined, but explained in the context in which they occur.

(d) *Speaking Exercises.*

Speaking exercises are quite essential. Pupils must be enabled to express themselves in complete sentences, before they are called upon to write on the subject matter. Every sentential element represented in a sentence gives rise to a question, and is, by means of a question, brought prominently before the mental eye of the pupil; this will assist him later, materially, in the grammatical analysis of sentences.

ILLUSTRATION.—The grateful son saved this morning his father's life. *Ques.*—Who saved his father's life? *Ans.*—The son saved his father's life. What did the grateful son do? He saved his father's life. What did he save? He saved the life of his father. Whose life did he save? He saved his father's life. When did he save his father's life? He saved his father's life this morning. What kind of a son is he? He is a grateful son.

The question-words: who, whose, whom, what, where, when, are the magic wands by means of which the teacher touches the pupil's mind.

It is not necessary to form as many questions as there are sentential elements of every sentence. It may be desirable to ask for the subject and predicate of one sentence, and for the object, attributive or adverbial elements of another.

(e) *Reading of the lessons by the pupils.*

(f) *Reproduction in writing of the subject matter.*

When children have reproduced in writing the subject matter of a reading lesson, they are requested to exchange slates or papers, and correct, with the open book before them, by underlining misspelled words. No written exercise should be accepted, unless it is the very best effort the child is capable of. If good legible writing is insisted upon, at all times, it will soon be perfect. Misspelled words must be copied from five to ten times as a punishment for carelessness and inattention.

(g) *Grammatical exercises in connection with the reading lesson.*

Technical rules of grammar are of no value whatever, if the pupil is unable to apply them. Reading lessons afford ample opportunities to test the grammatical knowledge of the pupils and to refresh their minds. A short outline or synopsis of the parts of grammar already taught in the grade should be kept constantly before the eyes of the teacher while the pupils read, or when the teacher discusses the spelling of words. This will enable the teacher to have readily at hand suitable questions.

SEVENTH GRADE.

Reading lessons to be treated as explained in the "General Remarks."

A term: 3, 4, 9, 10, 12, 14. B term: 16, 18, 19, 23, 38. C term: 33, 36, 40, 42, 43, 45. D term: 49, 57, 60, 63, 64, 69.

SIXTH GRADE.

A term: 2, 3, 5, 8, 9, 12. B term: 13, 17, 18, 19, 21, 23. C term: 25, 31, 33, 34, 41, 45. D term: 52, 65, 67, 71, 79, 84.

FIFTH GRADE.

A term: 1, 3, 6, 9, 11. B term: 12, 13, 15, 18, 21. C term: 22, 27, 29, 30. D term: 34, 36, 37, 38.

FOURTH GRADE.

A term: 40, 41, 43, 46, 47. B term: 49, 50, 52, 53, 55. C term: 56, 57, 59, 60, 61. D term: 63, 64, 69, 72, 79.

THIRD GRADE.

A term: 1, 3, 7, 9. B term: 11, 12, 14, 17. C term: 20, 21, 23, 24. D term: 25, 29, 21, 32.

SECOND GRADE.

A term: 34, 38, 40, 41. B term: 42, 44, 47, 49. C term: 51, 55, 57, 58. D term: 60, 62, 64, 67.

FIRST GRADE.

A term: 69, 71, 73, 74. B term: 77, 81, 87, 88. C term: 90, 92, 94, 95. D term: 96, 97, 100.

NOTE.—Other lessons besides the above mentioned may be read.

QUARTERLY EXAMINATION OF TEACHERS.

These questions must be held exclusively by the Chairman of the Board of Examiners, who is responsible to the State Board for their use. Any examinee who is found guilty of fraud or deception, must be forthwith expelled from the class, and the name of such offender reported to the State Board.

Examine no applicant who is less than eighteen years of age. Report to the State Board all the names and papers of applicants of a State Certificate, as soon as practicable.

Carefully read, and be governed by the regulations of the State Board of Examination, as published in the last edition of the School Law, especially the following declaration, to which every examinee must subscribe:

"I now, at the close of this examination, conscientiously declare that, prior to each session, I had no knowledge of the questions prepared, that I have neither given to any one, or received from any source, explanations, or other aid in answering any of them, that I am not less than eighteen years of age, and that the answers to the General Questions are true. I do so declare."

GENERAL QUESTIONS.

1. State your name, age, and birthplace. 2. Where educated. 3. Your experience in teaching. 4. What certificates or diplomas you hold. 5. Are you an applicant for a State Certificate?

N. B.—Nos. 12 and 13 (Composition and Penmanship) are to be determined from the other papers submitted.

ORAL READING.

15 Credits.

The Examiners should have each candidate read a few paragraphs in prose and a stanza or two of poetry, and mark the credits, considering three things—namely, care and smoothness, distinctness of articulation, and expression.

THEORY AND PRACTICE.

50 Credits.

1. What is meant by "Education" in its broadest signification? 2. What do you understand to be the scope of public school education? 3. Define Theory, Science and Art. 4. Is there a science of education, and if so, upon what is it based? 5. Mention some of the qualifications of a good teacher.

WORD ANALYSIS.

50 Credits.

1. What benefits should be derived from the study of word analysis? 2. When is the final consonant of a word doubled before a suffix? Give example. 3. When do we retain, and when reject the final *e* of a radical word? Give examples. 4. Give six suffixes meaning to make, with examples of each. Six, meaning one who, with examples. Six, denoting rank, the State or office. (10 credits.) 5. Show how you would conduct a recitation with the word Art as a text. 6. Mention two ways in which the meaning of radicals may be fixed in the mind. 7. What is the difference between a negative and a privative particle? 8. What is meant by Teutonic, Romanic, and Anglo-Saxon origin? 9. Origin and meaning of jubilee, tantalize, mausoleum, gordian, epicure, radiation?

ARITHMETIC.

100 Credits.

1. Express in words, 321,000,000,500,224,406. 2. Add $3\frac{1}{2}$ to 57-13 and divide the sum by $\frac{10\frac{3}{4}}{13}$. 3. Find the G. C. D. and L. C. M. of 256, 272, 522. 4. Change the following to thirds, and add them: 15 $\frac{4}{9}$ and 4-5. 5. How many solid cords is 12,000 feet of inch boards? 6. A tree in the Calaveras

grove is 30 feet in diameter and 300 feet in height; what number of inch boards will it make, allowing one-third for waste? 7. The circumference of a circle being given, how would you find its area? The diameter given, how would you find the circumference? 8. Explain the metric system and give its advantages and disadvantages. 9. Explain the term insurance, policy, premium, salvage. 10. Explain the required method for teaching arithmetic in the public schools, and state what works you prefer.

ORTHOGRAPHY.

100 Credits.

1. What are the legal requirements respecting instruction in spelling in our public schools? (Give five credits.)

2. Spell and capitalize, correctly, the following geographical names (two credits each): Visalia, Santa Monica, Stanislaus, Merced, Saucelito, Yuba, Del Norte, Yreka, Siskiyou, Soquel, Dolores, Alameda, Tulare, Vallejo, San Joaquin, Ukiah, Tuolumne, Mendocino, Humboldt, Wahsatch, Martinez, Los Angeles, Mokelumne, San Andreas, Galt.

3. Spell the following (one credit each): Seize, tease, draught, gauge, knoll, lien, sieve, scythe, skein, squeal, twelfth, mulct, witticism, vehicle, acacia, bissextile, proboscis, biennially, diligence, definite.

4. Correct the following (one credit each): Dazling, bernished, nuckel, nay-ber, sorce, klowdy, camfeen, sifur, mottoze, bluber, adew, tifoön, ranedere, ruffor, tunel, ade, dutefull, curenecy, allegater, lukwarm, curnel, sinynim, remittance, joly, leding.

NATURAL PHILOSOPHY.

50 Credits.

1. What is meant by Natural Philosophy, Physics, and Mechanical Philosophy? (10 credits.) 2. What is meant by property, force, law, conservatism of force, correlation of forces? (10 credits.) 3. Explain, briefly, Morse's magnetic telegraph. (5 credits) 4. Give the theory of light, its velocity, and state how it was first determined. (10 credits.) 5. Which is the warmest in the sunshine, white or black clothing? Which in shade? (5 credits) 6. Why does common glass intercept more heat from a stove than from the sun's rays? •

PHYSIOLOGY.

50 Credits.

1. Define Anatomy, Physiology, and Hygiene. 2. Why is breathing necessary for life? What is life, and what is death, physiologically? 3. What is the constitution of the atmosphere, and how is it altered by breathing? by burning gas and lamps? 4. How many cubic feet of air will an adult render

unfit for breathing in an hour? What is adequate ventilation? 5. What is the gas found in old wells; how does it affect animal life, and how may its presence be detected?

NATURAL HISTORY.

50 Credits.

1. Give the names, common and botanical, and range of two coniferous trees, found only in California, and state their economical uses. 2. Name three of the best varieties of grapes for the table, three for raisins. Are any of the cultivated varieties indigenous? 3. How may new varieties be produced, and what are the most common methods of propagation? 4. What insect has nearly destroyed the vineyards of France? Has it appeared in this State? State what you know of its natural history, and remedies. 5. How would you begin to teach the elements of Natural History to children?

MENTAL ARITHMETIC.

50 Credits.

1. 84 is 7-12 of what? 2. Find the sum of $\frac{1}{4}$ and $\frac{1}{5}$. 3. From $4\frac{1}{2}$ take 2 4-5. 4. Product of 104 by 9? 5. Quotient of 8 by .04? 6. How many inches is 5-6 of a foot? 7. How many ounces in $\frac{3}{4}$ of a pound of gold? 8. Prime factors of 120? 9. Cost of $7\frac{5}{8}$ yards of cloth, at 16 cents a yard? 10. Multiply $\$2\frac{1}{2}$ by $\$1\frac{1}{4}$.

ORAL GRAMMAR.

25 Credits.

NOTE.—Examiners will ask the following questions, orally, at any time during the examination:

1. How would you proceed to teach a class in language lessons, during their second school year? 2. How would you proceed to correct the written exercises of a class? 3. How would you develop the parts of speech? 4. Is Composition a part of English Grammar? 5. With what elementary books on Grammar or Language are you familiar?

HISTORY OF UNITED STATES.

50 Credits.

1. When, where, by whom, and for what purpose was California first settled? 2. Give a concise account of its social, agricultural, and educational condition under Spanish and Mexican rule. 3. By whom, and for what purpose were the Mexican and Railroad land grants made? 4. What four nations originally claimed the territory which ultimately became the United States? 5. What colonies first made provision for public schools?

CONSTITUTION OF UNITED STATES AND CALIFORNIA.

25 Credits.

1. What are the three divisions of the United States Government, and what are the functions of each? 2. How are the Judges of the Supreme Court of the United States appointed, and for what time? 3. Are the Judges of our Supreme Court appointed? Where does our Supreme Court meet? 4. Give the County Government of this State. 5. What is treason, and how is it punished?

SCHOOL LAW OF CALIFORNIA.

25 Credits.

1. What is required of a teacher before commencing to teach in the public schools? 2. Upon what does the grade of a school depend, and who fixes the grade? 3. How and from whom do teachers get their salary? 4. What is the teacher's remedy who is discharged before the time expires? 5. What is the last duty of a teacher before closing school?

INDUSTRIAL DRAWING.

25 Credits.

1. Give three examples of the utility of teaching drawing in the public schools. 2. What is taught, in the regular course, as laid down in the method adopted by the State? 3. Draw a figure containing four right, four obtuse, and four acute angles, and give ten questions, as to a class, concerning the figure. 4. What kind of lines would form a concave or a convex surface? 5. How many kinds of triangles are there, and from what do they take their names?

VOCAL MUSIC.

25 Credits.

1. Give a sketch of one year's work in music, which might be practicable in an ungraded school. 2. How many keys or scales in common use? 3. Give the name, by letter, of the 1st, 4th, 5th and 7th of each scale. 4. How many kinds of time are there? 5. Give an example of each

GEOGRAPHY.

50 Credits.

1. Bound California. Between what parallels of latitude? Length of coast line? Area and population? (15 credits.) 2. Draw an outline map of the State, with its principal mountain chains, valleys, rivers, and harbors. (15 credits.) 3. Bound this county, and tell what you know of its principal geographical features, climate and productions. (10 credits.) 4. Name the prin-

cipal agricultural productions of the State, where grown, the principal mineral products, where found, and the relative value of the two. (15 credits.)

5. What are the principal exports, imports? (5 credits.)

GRAMMAR.

100 Credits.

In the following sentences, parse in full the italicized words:

1. He who by the plow *would thrive* himself must hold the plow or *drive*. 2. Let there be no *strife*, I pray thee, between me and *thee*, for we are *brethren*.
3. What does the passive verb (or passive voice) signify, and how is it formed?
4. Form sentences containing the following verbs in the passive, (a) *drive*, (b) *drown*, (c) *set*, (d) *lay*, (e) *dream*. 5. Write a sentence containing a perfect participle, used simply as a participle. 6. Write sentences containing *that* (a) as a noun, (b) as an adjective, (c) as a relative pronoun, (d) as a conjunction. 7. Write sentences containing *what* (a) as a double relative, (b) as an interrogative pronoun, (c) as an interrogative adjective, (d) as an adverb. 8. When *self* is added to the personal pronouns, what are they called, and in what cases are they used? When should they be used? 9. What are the plurals of radius, phenomenon, deer, wharf, tableau, axis, focus, cherub. 10. Correct *drowneded*, *I throwed*, *had rather*.

WRITTEN READING.

35 Credits.

1. Explain the analytical and synthetical methods, and the difference between the two methods. 2. Give a sketch of a lesson on the objective plan. 3. What is Phonetic Reading? 4. Give five different standard methods of teaching reading. 5. Define Orthoepy, Pitch, Force, Time, Orthopony. 6. Define "Quality" of voice, and describe or give names to different qualities. 7. Give four rules, with examples, for rising inflections. Give four rules, with examples, for falling inflections.

ALGEBRA.

50 Credits.

1. Define the following terms: greatest common divisor, least common multiple, rational quantity, surd. 2. Divide $x^{\frac{3}{2}} + x^{\frac{1}{2}}y - xy^{\frac{1}{2}} - y^{\frac{3}{2}}$ by $x^{\frac{1}{2}} - y^{\frac{1}{2}}$. 3. Given $\frac{1}{x} + \frac{1}{y} = a$, $\frac{1}{x} + \frac{1}{z} = 6$ and $\frac{1}{y} + \frac{1}{z} = c$, find the values of x , y and z . 4. Multiply $2 + \sqrt{-9}$ by $3 - \sqrt{-1}$. 5. Find, by inspection, all the roots of the equation, $x(x^2 - 1)^3(x - a)^3 = 0$.

GRADUATES OF THE BOYS' HIGH SCHOOL, MAY, 1877.

CLASSICAL COURSE.

Adams, William	Newmark, Leo J.	Sloss, Louis
Alexander, Chas. O.	Putnam, Osgood	Smith, James A.
Bettelheim, Felix	Rauft, Henry A.	Tait, Wm. C.
Mann, Seth	Rowell, Edward F.	

ENGLISH COURSE.

Bournonville, Antoine	Lyman, George	Straus, Louis
Dodge, Henry	Manheim, Henry	Suter, Daniel
Eiseman, David	McGregory, Wm. A.	Vail, Chas.
Felsenthal, David	Murray, Richard J.	Widber, Frank
Keefe, William	O'Connor, Edward	Wiggins, Wm.
	Ruddock, Benjamin	

GRADUATES OF THE GIRLS' HIGH SCHOOL, MAY, 1877.

Adams, Florence S.	Cahn, Palmyre I.	Haydon, Sarah F.
Armstrong, Nellie	Caro, Joey W.	Hobe, Sophia A.
Alexander, Rebecca	Chipman, Lizzie W.	Hyde, Abbie L.
Armbruster, Helen	Chipman, Alice Maude	Howard, Louise B.
Allen, Mary J. E.	Cole, Emma E.	Henderson, Heloise M.
Armstrong, Anna	Crowley, Mary E.	Hill, Mary V.
Blair, Nellie J.	Crowley, Mary	Howe, Katie F.
Boucher, Sadie E.	Copeland, Laura G.	Jacobson, Harriet
Bruns, Hattie L.	Casey, Sarah M.	Jacobson, Alice
Beardsley, Emma F.	Dodge, Helen M.	Jenkins, Sarah B.
Bristol, Helen G.	Doherty, Emma J.	Kalisher, Frances
Buckley, Mary	Elliot, Mary A.	Keith, Eliza Dugliss
Barber, Emma J.	Ephraim, Adeline	Landsberger, Sophie I.
Barry, Nellie H.	Fisher, Alice A.	Lachlan, Maria E.
Brown, Amelia	Furley, Freddie	Lowry, Agnes
Blasér, Adèle	Franklin, Addie W.	Madden, Mary Agnes L.
Caldwell, Maggie J.	Fried, Delia	Maloney, Nellie F.
Canfield, Libbie P.	Gilmore, Forrest A.	Margo, Emma S.
Ciprico, Eleanor L.	Good, Emma	Minor, Grace D.
Crowley, Kate H.	Glidden, Cora A.	Morse, Georgia Coralie
Cullen, Frances E.	Guttman, Fannie	Morton, Mary M.
Curry, Maggie J.	Harvey, Kate M.	Manning, Irene E.

GRADUATES OF THE GIRLS' HIGH SCHOOL—CONTINUED.

Mearns, Eva A.	Sampson, Fannie C.	Thayer, Rose
May, Hattie	Scherer, Mary A.	Travers, Kittie Josephine
McLaren, Mary E.	Smith, Emma May	Turner, Lottie A.
Murch, Catrina	Stevens, Carrie F.	Unger, Annie
Macy, Lizzie R.	Stewart, Louisa K.	Wissinger, Nellie
Oglesby, Anna Irene	Schull, Juliet M.	Wolf, Florence S.
O'Connell, Nellie A.	Selig, Sophie	Winkely, Emma L.
O'Leary, Lillie J.	Smiley, Helen M.	Witherby, Emma F.
Post, Eva T.	Smith, Adelaide G.	Whyte, Agnes L.
Parker, Lizzie Adelle	Stauffer, Kate L.	Wilcox, Lizzie
Parker, Rose S.	Sawyer, Evelyn B.	Yehl, Josephine
Paul, Abby C.	Shirpsers, Cecilia	

MEDAL PUPILS OF THE GRADUATING CLASS OF THE DENMAN
GRAMMAR SCHOOL, MAY, 1877—TWELFTH AWARD.

Laura Chesley,	Tillie Kahn,	Jennie L. Peck,
Annie Cline,	Ada Kinsey,	Lizzie Benjamin,
Fannie Canham,	Alvina Luchsinger,	Hester H. McGiffin,
Ada Currier,	Rosa Magnes,	Frankie C. Bernard,
Lizzie Chandler,	Tillie McCarty,	Sarah Blumenthal
Lida Daingerfield,	Roxa MacFarlan,	Edith W. Smith,
Eva D'Ancona,	Cora McGrann,	Bertha E. Jack,
Mamie Frontin,	Maggie McGovern,	Alicia M. Morgan,
Mollie Johnston,	Mary McGivney,	Nellie Henry,
Janie Kirk,	Katie Moloney,	Belle J. Miller,
Emma Lafontaine,	Jennie Pettigrew,	Annie L. Hornsby,
Josephine McDevitt,	Ada Reynolds,	Alice H. Metcalf,
Annie Owen,	May Severance,	Phebe L. Parker,
Frances O'Leary,	Lizzie Sharrer,	Mary E. Daly,
Maggie Penniman,	Jessie Shaw,	Katie Cunningham,
Effie Sutherland,	Ella Taylor,	Jennie S. Dunn,
Nellie Nichols,	Emilie Wagner,	M. S. Galloway,
F. Nightingale,	Katie Paddon,	Mary F. Chisholm,
Mary Arnold,	Mary T. Valentine,	Louise Katz,
Mary Balink,	Lizzie G. Mahoney,	Maud I. Lachlan,
Mary Blain,	Mary E. Murphy,	Celia E. Smith,
Sarah Brown,	Alice E. Wagner,	Mary E. Cahalin,
Hattie Byrnes,	Carrie L. Kline,	Augustina F. Pinto.
Nettie Coad,	Jessie H. McCollom,	

MEDAL PUPILS OF THE GRADUATING CLASS OF THE LINCOLN
GRAMMAR SCHOOL, MAY, 1877.—TWELFTH AWARD.

Walter Carnes,	Benj. F. Harville,	Edward H. Kilham,
Geo. E. French,	Chas. E. Cooper,	Frank L. Blinn,
William H. Dick,	Wm. J. Carlin,	George Probasco,
Sam'l Rosenberg,	Fred. A. Doane,	Albert Brunner,
Fred. L. Morrill,	Edward F. Lohmann,	Edward Williams,
Moses Levy,	Thomas P. Cosgrove,	John T. Gaffey.
Jardine McEwen,	Joseph Seeligsohn,	

MEDAL PUPILS OF THE GRADUATING CLASS OF THE BROAD-
WAY GRAMMAR SCHOOL, MAY, 1877.—FIRST AWARD.

Annie Alex,	Lizzie Douglass,	Florentine Marchand,
Ida Ashcroft,	Lizzie Drucker,	Mattie McCarthy,
Eliza Benson,	Rosa Drucker,	Eliza Meader.
Sarah Campbell,	Alice Finerty,	Rosa Meehan,
Eliza Casassa,	Mary Finerty,	Katie Meighan,
Ella Cashen,	Alice Harrold,	Linder Mott,
Emily Chappell,	Evie Harrold,	Fannie Patridge,
Winnie Chase,	Jennie Houston,	Jessica Periotta,
Jennie Curry,	Rosa Lazarus,	Tessie Roche,
Carrie Dougall,	Flora Levy,	Ruby Rogers.

FIRST GRADE PUPILS PROMOTED TO THE HIGH SCHOOLS
WITHOUT EXAMINATION, MAY, 1877.

DENMAN GRAMMAR SCHOOL.

Bertha Bloomingdale,	Annie Moyle,	Amy Stillman,
Ardele Burcher,	Nellie Nichols,	Ella Taylor,
Laura Chesly,	Annie Owens,	Nettie Coad,
Lizzie Chandler,	Maggie Penniman,	Addie L. Dodge,
Ada Currier,	Tillie McCarty,	Flora Hill,
Mary Emmons,	Cora F. McGrann,	Tillie F. Kahn,
Emma Hawes,	Jennie D. Pettigrew,	Ada V. Kinsey,
Mollie Johnston,	Albertine Randall,	Bertha Mass.
Janie Kirk,		

LINCOLN GRAMMAR SCHOOL.

Edward F. Sohman,	Edward Williams,	Geo. Edson French,
Thomas P. Cosgrove,	Albert Brunner,	Benj. Franklin Harville,
Joseph Seeligsohn,	Chas. Eben Cooper,	Jardine McEwen,
John T. Gaffey,	Walter Carnes,	Frederick Leon Morrill,
Frank L. Bunn,	William Henry Dick,	Samuel Rosenberg,
Louis Reinhardt,	Benj. Chas. Fechheimer,	Chas. Barton Hill.

RINCON GRAMMAR SCHOOL.

Georgie Adams,	Louise Cullen,	Amelia Loeser,
Sarah Cohen,	Alice Jewell,	Kitty McCormick,
Mary Cooper,	Lena Kohlman,	Minnie Shepherd,
Esther Craner,	Katie Lennon,	Etta Sherman.

WASHINGTON GRAMMAR SCHOOL.

William Bacon,	Eugene Hoefer,	William Rutermau,
Edward Buswell,	Wm. Miller,	Erle Severns,
George Gardiner,	Beverly Morris,	George Turner.

UNION GRAMMAR SCHOOL.

Joseph Callahan.

BROADWAY GRAMMAR SCHOOL.

Carrie Dougall,	Jennie Houston,	Fannie Pattridge,
Lizzie Drucker,	Rosa Lazarus,	Tessie Roche,
Rosa Drucker,	Rosa Meehan,	Fannie Stinson,
Alice Harrold,	Katie Meighan,	Bella Taggart.

SPRING VALLEY GRAMMAR SCHOOL.

John Phelps,	Clara Fellows,	Charlotte Lang,
Oscar Whitmore,	Lizzie Kearce,	Mary McHugh.

HAYES VALLEY GRAMMAR SCHOOL.

Corinna Curtis,	Annie Hagarty,	Sophia Loewe,
Genevieve Alger,	Dollis Hayes,	Agnes O'Kane,
Lizzie N. Butler,	Eugenia K. Ward,	Martha Philbon,
Gesina A. Drucker,	Sarah L. Stewart,	Mamie Slack,
Ada L. Hixon,	Anthony B. Humphreys,	Lillie Stevens,
Hattie Appel,	Joseph P. Kelly,	Augusta Jacobs.
	Ada English,	

SOUTH COSMOPOLITAN GRAMMAR SCHOOL.

Emma Scholl,	Miriam Hochheimer,	Numa Dupein,
Emma Furter,	Cecilia Davidson,	Willie Guard,
Lizzie Levy,	Selina Solomons	Fred. Haase,
Lucy Dahlmann,	Lena Strehl,	Samuel Karsky,
Emma Dahlmann,	Pearl Hanly,	David Leszynsky,
Mary Seitz,	Simon Berlin, &	Philip Maass,
Fanny Yates,	Isidor Blum,	Samuel Sounenberg,
Jennie McLaren,	Gustave Brenner,	Dietrich Wulzen.
Helen Lenfesty,	Baneroft Davis,	

NORTH COSMOPOLITAN GRAMMAR SCHOOL.

Jennie Block,	George Gormley,	Mary McVerry,
Lillie Eidenmiller,	Mary Ingram,	Bella Prag,
Josephine Fautz,	William Keith,	Ella Speedie.

EIGHTH STREET GRAMMAR SCHOOL.

Thomas Baker,	Grace Stark,	Maggie McCarthy,
Mary Keady,	Fannie Franklin,	Maggie Flanagan.
Katie Williams,	Mary Kervins,	

VALENCIA STREET GRAMMAR SCHOOL.

Annie Hughes,	Minnie L. Packard,	Daniel F. Sheldon,
Sophie B. Kobicke,	Annie C. Poppe,	James N. Thane,
Katie L. Mandeville,	Cecilia E. Sautif,	Solomon Neuman.
Helen B. Orr,	George H. Lemman,	

GEARY STREET GRAMMAR SCHOOL.

George B. Henry,	William H. Ward,	Carrie B. Davis,
Frank E. Booth,	James H. Loryea,	Addie B. Dutcher,
Warren Maxson,	May E. Barry,	Nellie McDougall,
	Elvira Coleman.	

MISSION GRAMMAR SCHOOL.

Louisa Freeze,	Ella Loud,	Katie Rathburn,
Annie Jones,	Bertie Mower,	David Ewald,
Mary Leon,	Katie Mayers,	Louis Goldman,
Nellie Lavery,	Belle Smith,	Edward McAllister,
	Harry Eldridge.	

MODEL SCHOOL.

Jennie A. Bannan,	Lavinia Irwin,	Shelby A. Brooks,
Emma Foster,	Pauline B. Morrill,	Charles T. Reeve,
Clara P. Hall,	Teresa Sloan,	Geo. F. Winterburn.

South San Francisco School..... Minnie Graves.

Potrero School..... Thomas Short.

Laguna Honda School..... Julius Frankel.

DENMAN GRAMMAR SCHOOL.

Lottie Derby,	D. Van Den Bergh,	Lottie Farnsworth,
Florence Paul,	Daisy Bradford,	Aggie Murdock,
Marion Ransom,	Fannie Curtis,	Mabel Stillman,
Louisa Swett,	Hettie Clute,	Susie Wells,
Katie Thompson,	Lillie Eldridge,	Lillian Harris.

LINCOLN GRAMMAR SCHOOL.

John Carney,	Charles Conley,	Bennett Maass,
William Flynn,	Charley Spaulding,	John Marshall,
Freddie Gernich,	Charles Mayhew,	Frank Madison,
John Kennedy,	Chas. O'Connor,	Carlton Rickards,
Isadore Phillips,	Chester Freeland,	Frank Chamberlin,
Charles Porter,	Golden McAvoy,	Ross Cummings,
Eddie Willard,	James Halliden,	John Cunningham,
Charles Leonard,	John Bennett,	Thomas Gosland,
Bernard Hughes,	Eddie Cahalan,	Charles Lipman,
Russell Thompson,	John Crowley,	George Madison,
Edward Pierce,	Willie Charlock,	Tullio Rottanzi,
Thomas Morse,	Abe Davis,	George Zekind,
Frank Fuller,	Jesse Hopkins,	Frank Twing.

BINCON GRAMMAR SCHOOL.

Mary Dixon,	Maggie Maher,	Bertha Ashton,
Priscilla Jones,	Carrie Schroeppel,	Alice Emerson,
Constance Marchant,	Grace Shepherd,	Adelaide Levin,
Edith McEwen,	Ida Terwilliger,	Sarah McKean.

UNION GRAMMAR SCHOOL.

Daniel O'Connell,	Louis Pistolesi,	John Joly,
K. Rothman,	T. Donovan,	Jas. Furlong,
Fred. Navarro,	J. Morand,	A. Moucharmont,
A. McCracken,	E. Torres,	B. McCaffrey.

BROADWAY GRAMMAR SCHOOL.

Amelia Abrams,	Addie Freadman,	Nellie Neely,
Erminia Brizzolara,	Edith French,	Mary O'Brien,
Lizzie Corbus,	Ada Garibaldi,	Mamie Ponton,
Mari Carvi,	Flora Harvey,	Julia Reynolds,
Emma Delavan,	Carrie Hoppe,	Mary Richter,
Mamie Efford,	Mamie Hubbell,	Lillie Rosenheim,
Katie Fahey,	Josie Johnson,	Carrie Shelton,
Emma Fairman,	Rosa King,	Julia Simons,
Maggie Fairman,	Alice Levy,	Annie Skoyen,
Emma Figuera,	Alice Marliere,	Hattie Smith,
Lizzie Forbes,	Camille Marliere,	Louisa Tonks,
Hannah Frankenburg,	Abbie Mowry,	Lizzie Walsh,
Addie Franklin,	Lottie Musto,	Flora Weihe.

HAYES VALLEY GRAMMAR SCHOOL.

Lena Bergson,	Tobias Hock,	Clara Goss,
Lillie Borowsky,	Geo. Lake,	Lucie Goldstein,
Barbara Becher,	Gotlieb Meyer,	Conradin Rusteberg,
Lilly Cook,	Isador Zellerbach,	Herman Schetter,
Ada Erzgraber,	Dora Botcher,	John Berger,
Ida Kraus,	Maud Childs,	Mary Green,
Rosie Luchsinger,	Minnie Holmes,	Ellen Kerrigan,
Mary Webster,	George Tait,	Katie Kerrigan,
Ernest Behre,	Alice Heath,	Mary Nounan,
Adolph Goetzen,	Annie Magner,	Clara Saulberg.

SOUTH COSMOPOLITAN GRAMMAR SCHOOL.

Nellie Wheaton,	Ida Wilkins,	Melvin Goldsmith,
Katie Connolly,	George Flood,	Fredericka Hertz,
Nellie Kearns,	David Livingston,	Henry Katzenbach,
Lucien Aubert,	Gussie Morgenstern,	Monroe Toplitz,
Lincoln Nash,	Samuel Newmark,	Louisa Mablhai,
Baron Goldwater,	Rosa Taussig,	Josie Friedhofer,
Rebecca Ellis,	Grace Joseph,	Annie Rohe,
Mary Sexton,	Max Fischer,	Katie Brownstone,
Emma Verhave,	Henry Wolf,	Laura Holling,

NORTH COSMOPOLITAN GRAMMAR SCHOOL.

Emma Boschett,	Ernest Rideout,	George Hans,
Katie Fay,	George Wittman,	Willie Kuehn,
Annie Mallett	Minnie Ehlers,	John Siebe,
Thomas O'Connor,	Annie Heinz,	Annie Walters,
Ignatius Pierce,	Pauline Linn,	Laura Wertheimer,
Charles Pease,	Bertha Raemer,	

VALENCIA STREET GRAMMAR SCHOOL.

Esther Ciprico,	Flora B. Doud,	Matilda Giesenkerchen,
Mattie M. Hughes,	Nora O. Brien,	Sophie C. Hafner,
Mollie H. Merwin,	Emma S. Truett,	Dora F. Kraus,
Celina A. Philboin,	Samuel Deal,	Sarah M. Kruse,
Mamie Hopkins,	Jerry Dwyer,	Mary Moss,
Eddie J. Brown,	Henry M. Hearn,	Laura C. Sorrell,
James Fennell,	John Irwin,	Lottie Stockmeyer,
Walter Hartshorn,	Howard Johnson,	Louis J. Beicke,
Chas. D. Littler,	Chas. S. Rogers,	Henry Haman,
Wm. H. Tribble,	Arthur Kidd,	Henry Hortsman,

MISSION GRAMMAR SCHOOL.

Margaret Hamberger,	Belle McAllister,	Harry Rogers,
Nettie Judson,	Lillie McAllister,	Sophie Clausen,
Katie Leman,	Louisa Moore,	Mary Ellard,
Bertie Maurer,	Frances Plevin,	Annie Haehn,
Henrietta Neumann,	Daisy Smith,	Alice Heritage,
Lizzie Burmeister,	Sadie Turner,	Lizzie Lamb,
Annie Hencken,	Clara Thackery,	Jennie Murphy,
Henry Connolly,	Maud Cove,	Belle Morrison,
Elbert Dodge,	Emily Brook,	Amelia McKay,
Albert Gans,	Gussie Brown,	Ralph Minnie,
John Gabb,	Joseph Birch,	Mary Reynolds,
Eddie Hartwig,	Horace Cooley,	Daisy Smith,
Chas. Sulsberg,	Clifford Dujardin,	Edith Thorne,
Isaac Titus,	Harry Fletcher,	David Barry,
Minnie Brook,	Homer Horton,	Charles Lord,
Anna Fowler,	Chas. Moss,	Isham McAllister,
Katie Kingsbury,	Willie Plevin,	Ida Diserus.
Maggie Kennedy,	John Sully,	

SOUTH SAN FRANCISCO SCHOOL.

Annie Beatty,	David Stapleton,	Jno. O'Connor,
Edgar Dunshee,	Addie Blanken,	Willie Watts.
Willie O'Farrell,	Chas. Hibbard,	

POTRERO SCHOOL.

Mary Brannan,	Marcy Ellis,	Amy Crowell.
Hattie Ericksen,	Jane Conley,	

SOUTH COSMOPOLITAN PRIMARY SCHOOL.

Selma Bahn,	Alice Baker,	Robert Atkins,
Lena Eipper,	Lillian Bryan,	Chas. Bredhoff,
Eva Heller,	Bertha Christian,	Emanuel Barnett,
Celia Harris,	Nettie Levy,	Henry Heye,
Augusta King,	Harvey Housman,	Wm. Kip,
Lizzie Maynard,	Gustave Melsing,	Chas. Maas,
Minna Senna,	Chas. Stern,	Geo. Suckow.
Nellie Turk,	Peter Sauer,	

BUSH STREET PRIMARY SCHOOL.

Julia Gilfeather,	Feige Hyman,	Lisette Hunt,
Louisa Hüve,	Henry Kuchmeister,	Charles Case,
Lillie Kalmuck,	Walter Messinger,	John Dikeman,
Louisa Miller,	Ferdinand Scherr,	Aaron Grossman,
Lisetta Meyer,	Theresa Scho,	Charles Backer,
Tillie Mangels,	Annie Ebbets,	Charles Chapin,
Bertha Wuhrman,	Eugenie Cantel,	Henry Leavitt.
	John Bernhard,	

LINCOLN PRIMARY SCHOOL.

Emma Brown,	Jennie Spaulding,	Garson Rosencrantz,
Bella Burson,	Henrietta Sommers,	Fred. Springer,
Mary Devine,	Rosa Wood,	Bernard Burton,
Sarah Davidson,	Bella Wand,	Samuel Burchardt,
Lizzie Lyons,	Carrie Bennet,	Edwin Fox,
Martha McDonough,	Fannie Cohen,	Isaac Goodman,
Bertha Rosner,	Maggie Moran,	Stewart Luning,
Cora Smith,	Ida Russell,	Philip Lewis,
Bella Stewart,	Rosa Rosenberg,	Moses Rosencrantz,
Annie Schnoor,	Mamie Sullivan.	

MARKET STREET PRIMARY SCHOOL.

Belle Boyle,	Matilda Hoelsehn,	May Leonard,
Jennie Coffman,	Katie Higgins,	Eva Ritter,
Mary Cummings,	Flora Judkins,	Lollie Hanson,
Annie Doherty,	Katie Laurenson,	Nellie McDermott,
Grace Livermore,	Laura Olson.	

MARKET AND SEVENTH STREET PRIMARY SCHOOL.

Ralph Cushman,	Timothy Driscoll,	John Sloan,
Jacob Heineberg,	Louis Ruppín,	Eliza Wise,
	Myrtle Gaither.	

FOURTH STREET PRIMARY SCHOOL.

Violet Carmichael,	Maggie Dunning,	Lillie Reynolds,
Annie O'Brien,	Lillie Browning,	Mary Slater.
Mary O'Brien,	Christine McLean,	

SILVER STREET PRIMARY SCHOOL.

Maggie Boyce,	Mamie Elder,	Andrew Kuester,
Charles Coon,	Julia Goldsmith,	Charles Pippy,
Archie Cook,	Dora Harde,	Robert Parnow,
Charles Dingley,	Murray Hendry,	Jackson Shrader,
	Luke Tierney.	

PINE AND LARKIN STREET PRIMARY SCHOOL.

Louisa Knorp,	Bertha Rowell,	Jonathan Viel,
Adeline Strasburger,	Stella Adler,	Thomas Sullivan,
Tillie Clark,	Lillie Roden,	Clifton Newman,
Hattie Gerean,	Lucy Simons,	Henry Nibbe,
Charlotte Guard,	Fannie Greenhood,	Irving Hall,
Bertha Getleson,	Grant Morrill,	Joseph Mansfield,
Mina Blochman,	Willie Filmer,	Willie Loomis,
	Richard Harrison.	

HAYES VALLEY PRIMARY SCHOOL.

Theresa Kurlbraum,	Mary Casey,	Robert Bell,
Hattie Crockett,	Mary Farrell,	George Kelley,
Nina Brown,	Irene Wenzell,	Joseph Cummings,
Gertrude Briggs,	Willie Sweigert,	Willie Frazer.

UNION PRIMARY SCHOOL.

Belle Brougham,	Sarah Crouch,	Anna Hagglund,
Sarah Benson,	Martha Davis,	Alice Musgrave,
Emma Bennett,	Mary Fleisher,	Katie Quinlan,
Florence Bee,	Bessie Graves,	Lizzie Zeh,
	Eddie Mitchell.	

SHOTWELL STREET SCHOOL.

Lena Amundsen,	Carrie Valpey,	Edgar Forster,
Mary Beam,	Joseph Doyle,	Willie Irwin,
Mary Carroll,	James Fitzgerald,	James Longshore,
Kate Cummings,	Eddie Sweeny,	John Morrison,
Amanda Ellery,	Willie Sutton,	James Rider,
Cecilia Leslie,	Harry Tenney,	Charles Robertson,
Lucy Gould,	Eugene Bert,	James Rodgers,
Martha Poppe,	Joseph Costa,	Mary Glidden.
Josie Todman,	John Crowley,	

EIGHTH STREET PRIMARY SCHOOL.

Alice Curran,	Rosie Eagan,	Edward Brady,
Maggie Corrigan,	Julia Kerrins,	William Braman,
Emma Derry,	Maggie O'Keeffe,	Martin O'Connell,
Wimpi Fuiren,	Mary McDonald,	George Peckham.

COLUMBIA STREET PRIMARY SCHOOL.

John Behan,	Geo. McDonald,	Agnes Shanks,
Harry Beecroft,	Alex. Wagner,	Katie Treat,
Mark Hackett,	Camilla Brincatt,	Emily Van Norden,
Caspar Kramer,	Emma Ehrmann,	Mary Wallenrod,
Victor Mona,	Annie Ehrmann,	Laura Wulff,
John O'Connor,	Katie Flowers,	Cora Barcroft,
August Plantz,	Maggie Hannigan,	Jennie Craig,
James Yost,	Mary Harrington,	Katie Delaney,
Embry Rees,	Katie Malone,	Mary Desmond,
Geo. Doyle,	Nellie McBride,	Maggie O'Brien,
John Dooly,	Katie McDonough,	Bella Sharp,
Harry Weinert,	Lizzie Moore,	Maggie Tiernan,
Herman Stahl,	Mary O'Connell.	Abbie Whitney.
	Geo. Sattler,	

TEHAMA PRIMARY SCHOOL.

Thomas Gallagher,	Frank Potter,	Mary Dinan,
Thomas M'Carthy,	Charles Wallin,	Mabel Grant,
Harry Glick,	Joseph Kane,	Christine Hanson,
William Maitland,	Max Regensburger,	Ellen Ostrander,
James Ryan,	Pauline Breiling,	Mary Shea,
Julius Newdorfer,	Jennie Caro,	Emma Palmer,
	Lillie Stetson.	

TYLER STREET PRIMARY SCHOOL.

Peter Allins,	Frank Martin,	Eugene McFadden,
Henry Greenbaum,	Julius Levenberg,	John Pfaff,
	Arthur Hirshfield.	

POINT LOBOS SCHOOL.

Charles Shrader.

FAIRMOUNT SCHOOL.

Anna Horstmann,	Mary Wood,	Charles Hamerton,
Theresa Isola,	Evan Crowley,	David Rosenthal.
Annie Kerrigan,	Arthur Doren,	

LAGUNA HONDA SCHOOL.

Frank Ewing,	Patrick Gallagher.
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LIST OF SCHOOLS AND TEACHERS.

BOYS' HIGH SCHOOL.

Sutter Street, between Gough and Octavia Streets.

W. T. Reid	Principal.
A. L. Mann	Teacher of Latin and Greek.
Daniel Levy.....	Teacher of French and German.
A. T. Winn.....	Teacher of Natural Sciences.

ASSISTANTS.

J. M. Sibley,	Wm. White,	M. L. Templeton,
E. Knowlton,	G. R. Bissell,	C. H. Silliman.

GIRLS' HIGH SCHOOL.

Bush Street, between Hyde and Larkin Street.

John Swett.....	Principal.
Mrs. C. R. Beals	Vice-Principal.
Mrs. D. Clark.....	Vice-Principal.
V. Rattan.....	Teacher of Natural Sciences.
Mrs. H. Hocholzer.....	Teacher of French and German.
Mrs. M. W. Kincaid.....	Teacher of Normal Class.

ASSISTANTS.

Miss S. A. Barr,	Mrs. C. L. Atwood,	Miss I. Doyle,
Miss H. M. Thompson,	Miss Jessie Smith,	Mrs. M. Prag,
Miss M. J. Bragg,	Miss N. M. Owens,	Mrs. M. A. Colby,
Miss M. Wade,	Mrs. M. L. Hoffmann,	Miss F. A. Stewart,
Miss C. L. Hunt,	Miss S. E. Thurton,	Miss G. Smith,
Miss F. Jewett,	Miss K. Elliot,	Miss M. L. Soulé,
	H. Senger.	

DENMAN GRAMMAR SCHOOL.

Corner Bush and Taylor Streets.

James Denman.....	Principal.
Mrs. E. M. Baumgardner.....	Vice-Principal.

ASSISTANTS.

Mrs. M. J. Mayborn,	Mrs. E. Sexton,	Mrs. L. A. K. Clappe,
Miss S. P. Lillie,	Miss N. L. Fulton,	Mrs. M. J. Cline,
Miss A. Weston,	Miss K. B. Childs,	Mrs. L. Winn,
Mrs. S. B. Gates,	Miss A. T. Flint,	Miss Belle Rankin,
Mrs. I. M. Merrill,	Miss M. J. Gallagher,	Miss Julia Danks.

LINCOLN GRAMMAR SCHOOL.

Fifth Street, between Market and Mission Streets.

James K. Wilson.....	Principal.
J. T. Hamilton.....	Vice-Principal.
W. H. Edwards.....	Vice-Principal.

ASSISTANTS.

Miss M. Haswell,	Miss M. I. Brumley,	Miss M. O'Rourke,
Miss J. A. Forbes,	Miss J. C. Lande,	Miss L. N. Randolph,
Mrs. C. A. Anderson,	Miss N. Littlefield,	Miss M. T. Shea,
Mrs. M. E. McKown,	Miss J. Heney,	Mrs. J. F. Crawford,
Miss N. A. Savage,	Miss B. Roper.	B. L. Aldrich,
Miss S. Rightmire,	Mrs. A. B. Anderson,	Miss F. E. Coleman.
Miss M. Ray,	Miss E. L. Cornell,	

SOUTH COSMOPOLITAN GRAMMAR SCHOOL.

Eddy Street, between Polk and Van Ness Avenue.

A. Herbst	Principal.
Albert Lyser.....	Vice-Principal.
Mrs. L. K. Burke.....	Vice-Principal.
Wm. Zimmermann.....	Teacher of German.
Jacques London.....	Teacher of French and German.
Mrs. C. Lanfranchi.....	Teacher of French.
Miss S. Deetken.....	Teacher of German.

ASSISTANTS.

Miss K. R. O'Leary,	Miss H. Phillips,	Miss M. Dillon,
Miss B. Peiser,	Miss Julia O'Brien,	Miss M. Fairchild,
Miss B. A. Bicknell,	Miss N. O'Laughlen,	Miss C. Jacobs,
Miss K. F. McColgan,	Miss F. M. Shearer,	Miss A. E. Hutton,
Mrs. M. H. Melrose,	Miss R. Jacobs,	Mrs. S. B. Daniels.
	Miss A. Goldstein,	

RINCON GRAMMAR SCHOOL.

Silver Street, between Second and Third Streets.

Miss E. A. Cleveland.....	Principal.
Miss M. E. Stowell.....	Vice-Principal.

ASSISTANTS.

Miss E. F. Bowse,	Miss C. T. Bucknam,	Miss M. F. Smith,
Miss A. M. Dore,	Miss J. B. Brown,	Miss H. A. Moses,
Mrs. S. Eckman,	Mrs. S. N. Joseph,	Miss S. F. Loughran.
Mrs. A. C. Robertson,	Mrs. H. A. St. John,	

HAYES VALLEY GRAMMAR SCHOOL.

McAllister Street, between Franklin and Gough Streets.

George Brown.....	Principal.
A. J. Itsell.....	Vice-Principal.
Mrs. F. E. Reynolds.....	Vice-Principal.
Miss H. Cobb.....	Teacher of French.
Dr. J. Weideman.....	Teacher of German.

ASSISTANTS.

Miss M. E. Lipman,	Miss K. E. Gorman,	Miss M. Varney,
Miss F. E. Randall,	Miss M. I. McNicoll,	Mrs. M. E. Caldwell,
Miss A. M. Huntley,	Mrs. E. D. Humphrey,	Mrs. A. H. Bibb,
Miss K. A. O'Brien,	Miss Gertie Stevens,	Miss L. T. Ryan,
Miss K. McFadden,	Miss M. M. Rowe,	Miss Q. O. McConnell.
	Miss A. M. Hayburn,	

VALENCIA STREET GRAMMAR SCHOOL.

Valencia Street, between Twenty-second and Twenty-third Streets.

S. A. White.....	Principal.
L. W. Reed.....	Vice-Principal.
Miss A. A. Rowe.....	Vice-Principal.
L. Michaelson.....	Teacher of German.
Mrs. J. E. Gerichten.	Teacher of French and German.
Mrs. E. Gifford.....	Teacher of French.

ASSISTANTS.

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Miss J. E. Greer,	Mrs. A. C. Palmer,	Miss E. H. Morrison,
Mrs. S. J. Mann,	Miss E. J. Miller,	Miss Kate Bonnell,
Miss R. H. Bragg,	Miss C. Cohen,	Miss L. Johnson,
Miss M. I. Connell,	Miss S. C. Sturtevant,	Miss R. S. Parker,
Miss M. Ames,	Mrs. E. C. Marcus,	Miss E. V. Graham.
Mrs. M. L. Clery,	Miss M. E. Casey,	

NORTH COSMOPOLITAN GRAMMAR SCHOOL.

Filbert Street, between Taylor and Jones Streets.

Miss K. Kennedy	Principal.
Miss R. Levinson	Vice-Principal.
I. Leszynsky	Teacher of German.
Mrs. B. Chapuis.....	Teacher of French.

ASSISTANTS.

Miss M. A. Humphreys,	Miss H. Mullens,	Miss N. M. Storrs,
Miss L. A. Humphreys,	Miss N. E. Hoy,	Miss K. J. Mathieson,
Miss A. T. Campbell,	Miss V. E. Smith,	Miss E. U. Lindberg.
Mrs. H. Wise,	Miss D. Tiedeman,	

SPRING VALLEY GRAMMAR SCHOOL.

Broadway Street, near Polk Street.

J. W. Anderson.....Principal.
 Miss J. B. Short.....Vice-Principal.

ASSISTANTS.

Mrs. H. P. Taylor, .	Miss A. S. Harrington,	Miss M. A. Bonnard,
Miss A. C. Gregg,	Miss L. M. Banks,	Miss J. M. Boland,
Miss N. F. Sullivan,	Miss H. M. Thompson,	Miss V. M. Raclet,
Miss M. J. Canham,	Miss E. A. Bonnard,	Miss J. L. Gibbs.

MODEL GRAMMAR SCHOOL.

Geary Street, between Jones and Leavenworth Streets.

Mrs. A. E. DuBoisPrincipal.
 Miss P. S. Lighte.....Vice-Principal.

ASSISTANTS.

Miss M. E. Callahan,	Miss S. H. Earle,	Miss S. L. Corbell,
Miss S. E. Kelly,	Miss D. Leppien,	Mrs. E. M. North,
Mrs. C. K. Waters,	Miss J. Tennent,	Miss E. Kraus,
Mrs. S. H. Bigelow,	Miss M. E. Hurley,	Miss L. B. Little,
	Mrs. A. E. Owen.	

BROADWAY GRAMMAR SCHOOL.

Broadway Street, between Powell and Mason Streets.

Chas. H. Ham.....Principal.
 Mrs. M. J. Carusi.....Vice-Principal.

ASSISTANTS.

Miss J. Dunphy,	Miss F. L. Soule,	Miss M. Carnes,
Mrs. C. R. Pechin,	Miss L. P. Watson,	Miss C. Stewart,
Miss A. E. Aiken,	Mrs. L. Kelly,	Mrs. M. Currier.
Miss C. A. Adams,	Miss N. C. Haswell,	

UNION GRAMMAR SCHOOL.

Union Street, between Kearny and Montgomery Streets.

Chas. F. TruePrincipal.
 Dan. Lambert.....Vice-Principal.

ASSISTANTS.

Miss N. S. Baldwin,	Miss A. J. Miller,	Miss K. Fitzsimmons,
Miss C. Wheaton,	Miss E. G. Grant,	Miss N. McFarland,
Miss F. Spanhacker,	Miss E. Cooney,	Mrs. E. Farrish,

WASHINGTON GRAMMAR SCHOOL.

S. W. corner Washington and Mason Streets.

Jos. O'Connor.....Principal.
 E. Brooks.....Vice-Principal.

ASSISTANTS.

Miss D. S. Prescott,	Miss M. A. Evans,	Miss I. Merrit,
Miss Irene Lamb,	Miss I. Patterson,	Miss J. Driscoll,
Miss M. Murphy,	Miss M. A. Weeks,	Mrs. J. C. Jones.
Miss A. M. D'Arcy,	Miss M. Hendry,	

EIGHTH STREET GRAMMAR SCHOOL.

Eighth Street, between Bryant and Harrison Streets.

Jno. A. Moore.....Principal.
 S. SturgesVice-Principal.

ASSISTANTS.

Miss K. McDonald,	Miss M. L. Fuller,	Miss M. H. Slavan,
Miss J. R. Patton,	Miss L. M. Classen,	Miss M. O'Brien,
Miss L. Templeton,	Miss T. L. Lynch,	Mrs. E. F. Magee,
Miss K. E. Hurley,	Miss E. Donovan,	Miss Lida Thomas,
Miss J. E. Dowling,	Miss A. Aaron,	A. D. D'Ancona.
Miss Bessie Dixon,	Miss M. A. Harrigan,	

MISSION GRAMMAR SCHOOL.

Mission Street, between Fifteenth and Sixteenth Streets.

Miss L. T. Fowler.....Principal.
 Miss B. CoxVice-Principal.

ASSISTANTS.

Miss M. Bennett,	Miss M. Greer,	Mrs. S. F. Neil,
Miss M. O'Connor,	Miss J. Forsythe,	Miss W. Morse,
Miss M. Boyle,	Miss M. Sprott,	Miss M. Deane,
Mrs. M. O'Neal,	Miss W. Smith,	Miss V. Mitchell,

GEARY STREET GRAMMAR SCHOOL.

Geary Street, between Pierce and Scott Streets.

W. A. Robertson.....Principal.
 Mrs. N. A. Wood.....Vice-Principal.

ASSISTANTS.

Mrs. E. J. Elliot,	Miss Laura Pfeiffer,	Mrs. C. M. Sisson,
Miss Ida Strauss,	Miss Carrie O. Stone,	Miss Lillie Banks,
Miss Maria Strange,	Miss Ethel C. Stone,	John Bagnall,
Miss Ella Morton,	Miss N. C. Stallman,	Miss N. Selling,
Miss Etta Harris,	Miss Luella Hay,	Mrs. F. E. Baker.

MISSION PRIMARY SCHOOL.

Mission Street, between Fifteenth and Sixteenth Streets.

Miss M. J. Hall.....Principal.

ASSISTANTS.

Miss E. Cottle,	Miss G. Gallagher,	Mrs. E. H. Varney,
Miss J. Lundt,	Miss R. Jewell,	Miss Annie Day,
Miss M. Bradbury,	Miss A. Pearce,	Miss S. Pendergast,
Miss V. Ruby,	Miss C. L. Morton,	Miss M. Robinett.

TEHAMA PRIMARY SCHOOL.

Tehama Street, between First and Second Streets.

Mrs. E. A. Wood.....Principal.

ASSISTANTS.

Miss K. Johnson,	Miss H. A. Grant,	Miss E. Gallagher,
Miss E. White,	Miss J. Ephraim,	Miss E. A. Shaw,
Miss L. J. Horn,	Miss M. Blackstaff,	Mrs. A. H. Hamill,
Mrs. J. D. Wheeler,	Miss F. A. Nichols,	Miss L. Donnelly,
Miss C. Bunker,	Miss E. Booth,	Miss L. Brandt,
	Mrs. J. Love.	

SOUTH COSMOPOLITAN PRIMARY SCHOOL.

Post Street, between Dupont and Stockton Streets.

Miss M. A. Castelhun...	Principal.
Miss A. Fittig.....	Teacher of German.
Miss A. Schwann.....	Teacher of German.
Miss S. Dorsole	Teacher of German.

ASSISTANTS.

Miss L. McNear,	Miss M. Kaplan,	Miss Alice Hall,
Miss A. A. Garland,	Miss L. Heineberg,	Miss B. Bunner,
Miss K. Fuller,	Mrs. E. E. Hoyt,	Miss M. A. Lloyd,
Miss S. Wilson,	Mrs. R. T. Carter,	Miss R. Goldsmith,
Miss I. Kervan,	Miss M. E. Roberts,	Miss L. Wells.

LINCOLN PRIMARY SCHOOL.

Bryant Street, between Sixth and Seventh Streets.

Miss Kate Sullivan.....Principal.

ASSISTANTS.

Miss A. Hucks,	Miss Mary Collins,	Miss M. Salisbury,
Miss C. Hart,	Miss G. Garrison,	Miss V. Whigham,
Miss M. L. Jordan,	Miss F. Stuart,	Miss M. Hart,
Mrs. M. Steele,	Miss P. Langstadter,	Mrs. L. T. Hopkins.

MARKET STREET PRIMARY SCHOOL.

Fifth Street, bet. Market and Mission Streets (rear Lincoln Grammar School).

Miss A. M. Manning.....Principal.

ASSISTANTS.

Miss M. A. Roper,	Miss S. E. Skidmore,	Miss M. I. Crothers,
Miss J. Gilman,	Mrs. K. McLaughlin,	Miss L. O'Callaghan,
Miss A. L. Hunt,	Miss A. F. McDermott,	Mrs. C. A. Hartmeyer,
Miss B. A. Kelly,	Miss A. E. Lynch,	Miss S. B. Cooke,
Miss E. S. Anderson,	Miss B. Molloy,	Miss M. B. Parker,
	Miss L. E. Provost.	

FOURTH STREET PRIMARY SCHOOL.

Corner Fourth and Clary Streets.

Miss E. Stincen.....Principal.

ASSISTANTS.

Miss A. F. Sprague,	Miss M. J. Henderson,	Miss A. E. Benson,
Miss A. Gibbons,	Miss K. Shepheard,	Miss E. Clark,
Miss K. Hickey,	Miss A. M. Gunn,	Miss J. Madden,
	Miss H. Levy.	

PINE AND LARKIN STREET PRIMARY SCHOOL.

Pine Street, between Larkin and Polk Streets.

Miss H. Cooke.....Principal.

ASSISTANTS.

Miss V. Bradbury,	Miss M. Corkery,	Miss A. Sawyer,
Miss L. Templeton,	Miss L. Devine,	Miss D. Hyman,
Miss M. Donnelly,	Miss F. Cook,	Miss K. Casey,
Miss M. F. Metcalf,	Miss M. A. Oglesby,	Miss J. Ireland.

BUSH STREET COSMOPOLITAN PRIMARY SCHOOL.

S. E. corner Bush and Stockton Streets.

Mrs. C. F. Plunkett.....Principal.
 Mrs. A. Goustiaux.....Teacher of French.

ASSISTANTS.

Miss Dora Sloss,	Miss C. T. Maurer,	Miss M. V. Buchholtz,
Miss T. Hermann,	Miss J. Thyres,	Miss V. Coulon,
Miss E. LaGrange,	Miss H. M. Hitchcock,	Mrs. H. Solomon,
Miss F. Hare,	Miss P. Raphael,	Mrs. S. H. Summers,
Miss T. Hess,	Miss E. Hochheimer,	Miss E. Selling.

GREENWICH STREET PRIMARY SCHOOL.

Greenwich Street, between Jones and Leavenworth Streets.

Mrs. A. S. Trask.....Principal.
 Miss F. Solomon.....Teacher of German.
 Miss C. Fleury.....Teacher of French.
 Miss C. Weihe.....Teacher of German.

ASSISTANTS.

Miss C. E. Campbell,	Miss M. H. Smith,	Miss E. A. Day,
Miss J. C. Evans,	Mrs. F. A. Stewart,	Miss A. E. Gavigan,
Miss M. T. Giffin,	Mrs. M. J. C. Crocker,	Miss L. M. Barrows,
Mrs. F. V. Davis,	Mrs. C. A. B. Smythe,	Miss B. Goldsmith.

MARKET AND SEVENTH STREET PRIMARY SCHOOL.

Market Street, between Seventh and Eighth Streets.

Miss Alice Stincen.....Principal.

ASSISTANTS.

Miss A. Dudley,	Mrs. A. Bacon,	Miss G. T. Libby,
Mrs. C. E. Danielwitz,	Miss M. C. Barry,	Miss C. L. Powers.
Miss C. B. Earle,	Miss A. Weed,	

POWELL STREET PRIMARY SCHOOL.

Powell Street, between Washington and Jackson Streets.

Mrs. C. J. Gummer.....Principal.

ASSISTANTS.

Miss M. C. Robertson,	Mrs. H. V. Shipley,	Miss S. F. Featherly,
Mrs. F. W. Collins,	Mrs. E. S. Forester,	Miss L. Manken.
Miss M. Solomon,	Miss C. Hastings,	

SILVER STREET PRIMARY SCHOOL.

Silver Street, between Second and Third Streets.

Miss Jennie Smith.....Principal.

ASSISTANTS.

Miss J. A. Doran,	Miss I. Glennon,	Miss M. Sleeper,
Mrs. T. M. Sullivan,	Miss E. Chase,	Miss R. G. Campbell,
Miss Pauline Hart,	Miss S. A. Deacon,	Miss J. Hart,
Miss R. P. Paul,	Miss M. Karsky,	Miss A. S. Jewett.

BROADWAY PRIMARY SCHOOL.

Broadway Street, between Montgomery and Sansome Streets.

Miss Carrie Barlow.....Principal.

ASSISTANTS.

Miss S. E. Miller,	Mrs. M. A. Dunbar,	Miss S. Valteau,
Miss J. Johnston,	Miss E. L. McElroy,	Miss N. Murphy.
Miss M. E. Doran,	Miss F. L. Stark,	

UNION PRIMARY SCHOOL.

N. W. corner Filbert and Kearny Streets.

Mrs. A. Griffith.....Principal.

ASSISTANTS.

Mrs. M. Wright,	Miss A. Cherry,	Mrs. S. A. Miles,
Miss H. Featherly,	Miss K. Deane,	Miss A. Hanson.
Miss P. Robbins,	Miss L. Burke,	

SHOTWELL STREET PRIMARY SCHOOL.

Shotwell Street, between Twenty-Second and Twenty-Third Streets.

Miss A. A. Hill.....Principal.

ASSISTANTS.

Mrs. E. M. Carlisle,	Miss M. T. Walsh,	Miss K. M. Hassen,
Miss H. L. Wooll,	Miss Ella Ciprico,	Miss E. M. Bodwell,
Mrs. E. S. Code,	Miss A. Summerfield,	Miss M. Magner,
Miss D. Cronan,	Miss M. J. Johnson,	Miss E. J. Little.

HAYES VALLEY PRIMARY SCHOOL.

Grove Street, near Larkin Street.

Miss P. M. Stowell.....Principal.

ASSISTANTS.

Miss C. K. Rixon,	Miss M. Fagan,	Miss Kate Little,
Miss F. A. Stowell,	Miss G. N. Taylor,	M s. L. Marchant,
Mrs. M. Dwyer,	Miss S. J. Boyle,	Miss E. Goggin.
Mrs. L. E. Worth,	Mrs. L. A. Russell,	

EIGHTH STREET PRIMARY SCHOOL.

Eighth Street, between Harrison and Bryant Streets.

Miss A. E. Slavan.....Principal.

ASSISTANTS.

Miss M. E. Moroney,	Miss J. Hockheimer,	Miss M. Durand,
Miss C. Johnston,	Mrs. A. E. Wright,	Miss K. Zwicker,
Miss M. A. Ahern,	Mrs. M. A. Lowe,	Miss S. D. Moore,
Miss K. M. Donovan,	Miss A. J. Reece,	Miss R. Mayers.

TYLER AND JONES STREET PRIMARY SCHOOL.

Tyler Street, between Jones and Leavenworth Streets.

Mrs. E. B. Jones.....Principal.

ASSISTANTS.

Miss C. A. Menges,	Miss M. A. Hassett,	Miss C. L. Pinkham,
	Miss A. C. Herndon.	

TYLER STREET PRIMARY SCHOOL.

Tyler Street, between Pierce and Scott Streets.

Miss E. Cushing.....Principal.

ASSISTANTS.

Mrs. A. E. Tiernan,	Miss M. A. Hatman,	Miss M. Wiseman.
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SPRING VALLEY PRIMARY SCHOOL.

Union Street, near Franklin Street.

Miss J. M. A. Hurley.....Principal.

ASSISTANTS.

Miss B. Bannan,	Miss J. Baldwin,	Miss M. E. Carson,
	Miss N. Anderson.	

POTRERO SCHOOL.

Corner of Kentucky and Napa Streets.

W. W. Stone.....Principal.

ASSISTANTS.

Miss M. A. Fay,	Miss A. M. O'Brien,	Miss K. Ellis,
Mrs. E. M. Poole,	Miss G. H. Perry,	Miss S. Hawes.

NOE AND TEMPLE STREET PRIMARY SCHOOL.

Corner of Noe and Temple Streets.

Mrs. E. Foster.....Principal.

ASSISTANTS.

Miss I. Emmons,	Miss M. Simon,	Miss E. J. McGreevy.
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FAIRMOUNT SCHOOL.

Chenery Street, near Randall Street.

Miss H. M. Fairchild.....Principal.

ASSISTANTS.

Mrs. A. H. Green,	Miss H. Peck,	Miss S. B. Jenkins.
Miss A. B. Hinton,	Mrs. L. M. Covington,	

SOUTH SAN FRANCISCO SCHOOL.

Fourteenth Avenue, near L Street.

W. J. Gorman...Principal.

ASSISTANTS.

Miss M. Matthews,	Miss M. V. McGeough,	Miss M. L. Belding,
Miss M. F. Hollron,	Miss K. F. Casey,	Miss E. Roberts,
Miss J. B. Gorman,	Miss B. Garness,	Miss M. Still.

COLUMBIA STREET SCHOOL.

Columbia Street, between Twenty-fifth and Twenty-sixth Streets.

Mrs. M. Deane.....Principal.

ASSISTANTS.

Miss N. G. Sullivan,	Mrs. C. J. Bigelow.	Miss E. F. Gracier,
Miss I. R. Mallory,	Miss M. Robinett,	Miss E. F. Swain,
Miss L. Knowlton,	Miss M. E. Miller,	Miss A. Gracier,
Miss L. E. Fennell,	Mrs. L. J. Fryer,	Miss A. McLaughlin.

REPORT OF THE SUPERINTENDENT

LAGUNA STREET PRIMARY SCHOOL.

Laguna Street, between Tyler and McAllister Streets.

Mrs. G. Washburn.....Principal.

ASSISTANTS.

Miss T. C. Stohr,	Miss F. Peiser,	Miss S. R. Thompson,
	Miss R. A. Thompson.	

LAGUNA HONDA SCHOOL.

Eighth Avenue, near R Avenue.

Mrs. J. E. Meeker.....Principal.

Miss E. Eaton.....Assistant.

JACKSON STREET PRIMARY SCHOOL.

Jackson Street, between Webster and Fillmore Streets.

Mrs. B. F. Moore.....Principal.

ASSISTANTS.

Mrs. M. A. McKibben,	Miss M. Bannan,	Miss B. Stanford.
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WEST END SCHOOL.

San Jose Road, near the Six Mile House.

B. L. Brown.....Principal.

Miss M. E. Traynor.....Assistant.

CASTRO STREET PRIMARY SCHOOL.

Castro Street, between Eighteenth and Nineteenth Streets.

Mrs. F. A. Banning Principal.

ASSISTANTS.

Miss I. Gallagher.

Mrs. M. E. Moore.

OCEAN HOUSE SCHOOL.

San Miguel Road, near the Ocean House Road.

James Dwyer..... Principal.

Miss Annie Kean..... Assistant.

POINT LOBOS SCHOOL.

Nineteenth Avenue, near Point Lobos Avenue.

Wellington Gordon.. Principal.

Miss R. O'Donnell..... Assistant.

SAN BRUNO SCHOOL.

San Bruno Road, near Serpentine Avenue.

Miss Eva Ciprico..... Principal.

Miss N. Moynihan..... Assistant.

SOUTH END SCHOOL.

William Street, near Henry Street.

Miss R. B. Birdsall Principal.

Miss Julia Lewis.. Assistant.

LOBOS AVENUE SCHOOL.

Point Lobos Avenue, near Parker Avenue.

Miss E. GoldsmithPrincipal.
 Mrs. T. Oldham.....Assistant.

DRILL INSTRUCTOR.

Capt. Jas. E. Hughes.

TEACHER OF GYMNASTICS.

Henry Mattern.

MUSIC TEACHERS.

Washington Elliot.....Principal.

ASSISTANTS.

W. D. Murphy,	Miss L. E. Rider,	W. E. Price,
Miss A. Block,	Miss H. Summerfield.	Miss M. Withrow.

DRAWING TEACHERS.

Hubert Burgess.....Principal.

ASSISTANTS.

George Schoof,	Mrs. M. E. Stovall,	Miss E. B. Barnes.
	Mrs. E. P. Bradley,	

FINAL STEPS INTRODUCTORY TO THE STUDY OF
GENERAL GEOGRAPHY FOR SIXTH GRADE.

SAN FRANCISCO.

HISTORY.—San Francisco, in law “the City and County of San Francisco,” is in latitude $37^{\circ} 46'$ N., longitude $122^{\circ} 23'$ W. It is built on the northern end of a peninsula lying between San Francisco Bay on the east and the Pacific Ocean on the west. The peninsula is eighteen miles wide at its base and six miles wide at its northern point.

San Francisco Bay lies between Contra Costa and Alameda counties on the east, and San Francisco and San Mateo counties on the west. On the south it touches the northern point of Santa Clara county, and on the north a narrow strait, three miles in width, connects its waters with those of San Pablo Bay. It is about fifty miles long and eight miles wide. It communicates with the Pacific Ocean by the Golden Gate strait, which is one mile in width.

San Francisco Bay is supposed by some to have been discovered in the year 1579, by Captain Drake, a distinguished English navigator. He afterwards became Admiral in the navy of his native country, and was one of the founders of the naval greatness of England. Having been knighted by Queen Elizabeth, he is known in history as Sir Francis Drake. Others believe that the bay discovered by him was the one known at present as Drake's Bay, lying a little north of the Golden Gate strait, and indenting the western coast of Marin county. Drake named the country New Albion; and on some old English maps we find California represented under that name.

The other and more probable history of the discovery of San Francisco Bay is, that nearly two hundred years after Sir Francis Drake's visit to, and, as he erroneously believed, discovery of California, the Spanish Government wished to secure possession of the territory of California, a map of which had been drawn up at Madrid as early as the year 1541. For this purpose the Spanish Government sent instructions to the Viceroy of New Spain to found missions and presidios at San Diego, Monterey, and various other parts of the northwestern country. The government of these settlements was put under the control of monks of the Order of St. Francis—two monks being placed in charge of each mission. All the missions were indebted, for their beginning and chief success, to subscriptions given in Spain and Mexico, forming a fund known as “The Pious Fund of California.”

After establishing the Mission of San Diego, the missionaries intended to travel to Monterey and there found a mission. They, however, did not find

the harbor, and journeyed on till they reached the bay of San Francisco, which is said to have derived its name from the following circumstance: Father Junipero, before leaving Lower California, had received instructions from the agent of the Spanish Government respecting the names of the proposed missions. The names of the saints to whose special patronage they were to be entrusted had been carefully selected from the calendar, but among them that of St. Francis did not happen to occur. "What!" exclaimed the missionary, "is not our own dear father, St. Francis, to have a mission assigned to him?" The agent replied, "If St. Francis wishes a mission, let him show you a good port, and that shall bear his name." Accordingly, when the missionaries, in traveling northward, discovered the bay mentioned, they exclaimed, "This, then, is the port to which the visitador referred, and to which the saint has led us—blessed be his name!" They forthwith named it San Francisco Bay, set up a cross, as was their custom, and returned to San Diego. This was in the year 1769.

In 1776 an expedition started from Monterey by land; arrived on the 27th of June; and on the 9th of November, 1776, that being the day of St. Francis, founded the Mission of San Francisco de Assisi, sometimes called the Mission of Dolores. Besides the mission buildings, consisting of church, dwelling, workshops, etc., there were erected at the same time, and about four miles distant from them, a presidio and a fort. The names of the two monks who founded this mission were Francisco Palou and Benito Cambon, both natives of Spain. The mission remained under the complete control of the Franciscan friars until 1835, when the missions began to pass into the hands of the civil officers of California. They had hitherto been prosperous, their wealth consisting chiefly in cattle, but also in wheat, barley and merchandise. After passing from the control of the Church to that of the civil government, their downfall was rapid.

One of the first effects of secularizing the mission, thus placing the country under the control of the civil powers and encouraging colonization, was the establishment of the village of Yerba Buena. About two and one-half miles northeast from the mission was a small cove, one mile in width, and extending about one-half mile into the land. It was situated between two projecting points of land, now known as Clark's Point and Rincon Point. This cove, along whose front line the water was forty feet deep, has since been filled in, and where, in 1849, large ships rode at anchor, are now paved streets. The cove was named Yerba Buena. The meaning of Yerba Buena is *good herb*. The name is given to a mint which grows in this region in the form of a vine running upon the ground. The leaves are opposite, and it bears a tiny flower. The plant is very fragrant, and is said to have medicinal properties. An island bearing the same name, called also Goat Island, lies in the bay about two miles east of the city.

On this cove a small Spanish village grew up, bearing the same name as the cove. The first dwelling was erected in 1835 by Captain Richardson. It was simply a large tent, supported on four redwood posts, and covered with

a ship's foresail. In 1841 the cove was first visited by an American war vessel, the sloop "St. Louis." Whaleships had come here for supplies as early as the year 1822. In this latter year trade began between California and the United States and England, California's exports consisting mainly of tallow and hides.

We have seen that the Mission of San Francisco de Assisi was at first a Spanish colony, established, with the others, by instructions received from the Viceroy of New Spain, or Mexico as we now call it, when it belonged to the Spanish Crown. The jurisdiction of the Presidio of San Francisco extended over the town of San José and the Missions of San Francisco, Solano, San Rafael, Santa Clara, San José and Santa Cruz. But the Spanish Court interfered little with the government of California. A commander-in-chief of the garrisons of the presidios was appointed by the Crown. His duty, however, being merely to protect the missions from hostile Indians, he was not allowed to interfere with the temporal government of the Fathers. The commander-in-chief resided in Monterey, and the Fathers who presided at the different missions exercised full and complete power. They passed laws in regard to property, established penal laws, and even the death penalty, declared peace and war with the Indians, controlled the finances, and held under contribution the Spanish Government itself, as well as faithful Catholics all over the world. This state of things continued until the year 1822, when a revolution occurring in Mexico, the latter country threw off its allegiance to Spain, and in 1824 established a republican form of government. This involved the overthrow of the Spanish power in California. The new Mexican Government assembled a Congress and framed a Federal Constitution similar to that of the United States. This Constitution made New California a Territory of the Republic, its population being too small to allow of its constituting a State. The Mexican Congress appointed a commander-in-chief for California; but his authority was merely nominal, and then, as previously, the real power vested in the hands of the Fathers.

In 1835, under the first administration of Santa Anna, an attempt was made to centralize at the Federal Capital the power of the Mexican Government. This greatly changed the Constitution of 1824—a change so much disapproved by California as to give rise to a rebellion there. The Californians expelled the Mexican Federal Officers, disbanded the Government troops, and declared themselves independent. The Mexican Government was kept too busy suppressing factions nearer home to attempt immediate suppression of the rebellion in California. In 1836 Santa Anna was defeated. But the party that succeeded continued the same policy. The excitement in California against it had, however, by that time, subsided, and in 1837 the people of the latter country peaceably accepted the new Mexican Constitution and swore allegiance to it.

The second house in Yerba Buena was built by Jacob Primer Leese. This was erected on the lot which now forms the corner of Clay and Dupont streets, and adjoining the lot on which stood the tent of Captain Richardson.

This house was finished on the morning of the Fourth of July, 1836, and these two houses formed the beginning of San Francisco. In eighteen years from that time there was around that spot a population of 50,000. In twice that time—thirty-six years—we have a population of 178,000. Mr. Leese celebrated Independence Day and the completion of his house by a grand banquet, to which guests were invited far and near. Outside of the building floated the Mexican and American flags—the first time the latter was displayed on the shore of Yerba Buena. The first child born in Yerba Buena was the daughter of Mr. Leese and granddaughter of General Vallejo. Her birthday was April 15, 1838.

So late as 1844 Yerba Buena contained only about one dozen houses, with a population of not more than fifty persons. During the years 1842 to 1846, several thousands of immigrants crossed the Rocky Mountains and the Sierra Nevada to settle in California. Others came around Cape Horn. The Mexican Government tried in vain to stop this current of emigration.

While the country was becoming rapidly Americanized a quarrel arose between the Mexican officials and the American settlers, in which the Mexican commander attempted to expel the settlers from the country. A general uprising of the Americans ensued, a declaration of independence followed, and active warfare was commenced against the Mexican authorities.

These troubles began before the news of the war between Mexico and the United States, which was declared in April, 1846, and which terminated by the treaty of Guadalupe Hidalgo, ratified in May, 1848. By this treaty California, which had already been conquered, was ceded, together with other territory, to the United States for the sum of \$15,000,000.

The United States Government appointed General Kearny first Governor of the new Territory of California. He was established in this office early in the year 1847.

The first chief magistrate, or *Alcalde* of San Francisco, under American rule, was Washington A. Bartlett. On the 30th of January, 1847, Mr. Bartlett published an ordinance changing the name of the town of Yerba Buena to San Francisco. At this time there were only about fifty houses in the place and a population of 375, not reckoning the Indians. By this change of name Benicia, which until then had borne the name of Francesca, was obliged to change its appellation. It then assumed its present name, Benicia.

The growth of San Francisco received a severe check from the report of the discovery of gold. This discovery was made on the 19th of January, 1848, at Coloma, in El Dorado County. The news spread rapidly, reaching San Francisco early in the Spring of the same year. A large part of the population hurried, in the greatest excitement, to the placers or gold diggings. San Francisco soon gained by this however, more than it at first lost; the bay was filled with shipping from many parts of the world, while the fortunate miners returned here to squander or spend their gold; others preferred to remain here and receive the gold of the miners in exchange for supplies, rather than themselves to endure the hardships of a miner's life.

The rush of immigration was so great that a more substantial government became necessary for a population which soon amounted to a quarter of a million. After some steps taken by the people themselves, General Riley, Military Governor of the Territory, called a convention of delegates to meet at Monterey, September 1, 1849, for the purpose of framing a State Constitution. Their labors were finished on the 13th of October, and while the signatures were being affixed, the guns from the fort were fired thirty-one times, the thirty-first time for California, which was to become the thirty-first State of the Union. The Constitution thus formed was adopted by the people, and on September 9th, 1850, the Congress of the United States admitted California into the Union.

Peter H. Burnett was the first Governor of the State of California. He was inaugurated on the 20th day of December, 1849.

The government of San Francisco of course changed with that of California. Under the Spanish rule the commander-in-chief of the military forces resided at the presidio of the district over which he had jurisdiction. In 1835, Governor Figueroa, at the suggestion of General Vallejo, ordered an election of civil officers for the District of San Francisco, fixing the seat of Government at the Mission of Dolores; this act dates the first civil organization at this important point. The chief magistrate was called the *alcalde*. The first *alcalde* of San Francisco was Francisco de Haro.

Under the Mexican laws an *alcalde* had the entire control of municipal affairs, and administered justice less according to any fixed principle of law than to his own ideas on the subject. When the Americans seized the country they appointed numerous *alcades*, instructing them to administer justice in conformity, as far as possible, with Mexican law and California customs.

On the 13th of September, 1847, the first *ayuntamiento* or Town Council was appointed to assist the *alcalde*, who found it impossible to transact all the business which now devolved upon him. To the labors of this council the city owes its first systematic municipal foundation.

On September 9th of the succeeding year the largest meeting heretofore ever assembled in San Francisco was held for the purpose of establishing a rate of value for gold dust. Coin was scarce; as yet no mint had been established; it had therefore become necessary to adopt gold dust as currency. The meeting fixed its currency value at sixteen dollars an ounce.

On the 1st of April, 1850, the first election for county officers took place.

On the 15th of April, 1850, the city charter was passed by the State Legislature; on May 1st it was adopted by the inhabitants of San Francisco, and municipal officers elected. John W. Geary, who at the last election had received a unanimous vote for the position of *Alcalde*, which office he still held, was, by a large vote, elected first Mayor of San Francisco. According to the city charter municipal officers were to hold office only one year.

One of the principal acts of Mayor Geary was to veto a bill which had caused great excitement in the community. This bill, passed by the members of the Common Council soon after coming into office, allowed to each of

the Board of Aldermen a salary of four thousand dollars a year; they, however, passed the ordinance by the legal number of votes over the Mayor's veto, and revenged themselves by refusing for a long time to grant the latter officer a salary. This source of dissatisfaction was corrected by the next Legislature, who declared that henceforward the members of the Common Council should not be entitled to any compensation for their services. The action of the Mayor was warmly approved by the people.

On the 15th of April, 1851, the Legislature passed an Act repealing the charter of 1850, reincorporating the City of San Francisco, and enlarging its limits. By this Act the boundaries of the city were fixed on the north and east co-incident with the boundaries of San Francisco County; on the south by a line parallel with Clay street and two and one-half miles distant, in a southerly direction, from the center of Portsmouth Square; on the west by a line parallel with Kearny street, and two miles distant, in a westerly direction, from the center of Portsmouth Square.

Towards the end of the year 1848, the first rumors were heard of a party or society formed, as the members pretended, for mutual assistance in sickness or danger. This society was called the "Hounds." It was composed of ruffians and villains from all parts of the world; they became so bold as to parade on Sundays, armed with bludgeons and revolvers; at night they attacked citizens of every class, robbing them, destroying their buildings, maltreating and murdering them. At last, in July, 1849, their conduct became insufferable; the respectable portion of the community combined, organized a police force, arrested several of the "hounds," tried them, and sentenced some to be sent to any penitentiary the Court might indicate. These sentences were not all carried out, but the society was by this means broken up. The success of the people's efforts to free themselves from the power of these ruffians afterwards encouraged them in the formation of the famous "Vigilance Committee."

Associations under the latter name were formed not only in San Francisco, but in Sacramento, Stockton, San José, and other towns; they aided each other in watching and pursuing the destroyers of peace and good order throughout the country.

The discovery of gold in California had caused the immigration of an immense population, strangers to each other, and strangers to the laws of the land. The legal institutions which had grown up with the previous comparatively small population were insufficient for the protection of this sudden increase. Not only the reputation of its wealth, but also the condition of its society, made California especially alluring to desperadoes, rascals, and criminals from all parts of the world. While America and the different countries of Europe sent a share of such people, the large proportion of them were probably convicted felons sent by England to New South Wales and Van Dieman's Land; from there they easily managed to make the comparatively short voyage to California. Once here the opportunity was but too favorable for the resumption of their former mode of life; for here "prosecutors and wit-

nesses were few or too busy to attend to the calls of justice; here jurors, not knowing the law and eager to be at money-making again, were apt to take hasty charges from the bench as their sole rule of conduct; here Judges, chosen by popular election, were either grossly ignorant of law, or too timid or careless, corrupt, or incapable to measure out the full punishment of crime; here the laws themselves had not yet been methodically laid down, nor the forms and procedure of legal tribunals digested into a plain, unerring system."

These desperadoes, leagued together for mutual protection, assistance, and rescue, had their places of rendezvous where the police—few in number, poorly paid, and often in league with the criminals—hardly dared to enter. Moreover, if a criminal happened to be arrested, escape was rendered easy by acceptance of bail entirely worthless, insecurity of prisons, false swearing of witnesses, dishonesty of jurors, and incapacity or venality of Judges.

At length, in 1851, crime, in the forms of incendiarism, burglary, robbery, and murder, increased to such an alarming extent that the public became impressed with the idea that the Courts were the *protection* and *refuge* instead of the *terror* of rogues; a great number of the most influential, orderly, and respectable citizens of San Francisco then formed themselves into an association, with constitution and by-laws; the association was called the "*Vigilance Committee*;" it took upon itself to establish good order in the community, and to render life and property secure, although in doing so it was obliged to act independent of the legally-appointed civil officers. The proceedings of the committee were attended with heavy expense, which was borne by voluntary contributions. They exercised the authority they assumed in a quiet and dignified manner. One of the provisions of their constitution was that no person brought before the committee should be punished without a fair trial and conviction. They provided themselves with arms and ammunition, drilled their forces, fortified their headquarters, and constructed cells for prisoners. They arrested and tried rogues and dangerous men, some of whom were hanged, some transported, some acquitted. Many who were suspected or warned by the committee left the country. From all the evidence that can be obtained, it is not supposed that a single instance occurred in which a really innocent man suffered the extreme penalty of death. Those who were executed generally confessed their guilt and admitted the punishment to have been merited.

The Vigilance Committee having restored the city to a tolerable state of safety and tranquillity ceased to act, but did not formally disband. In 1855 the city government had again become exceedingly corrupt, and Mr. King, in the *Bulletin* newspaper, criticised in severe terms its action, commenting particularly on the character of a man named Casey (who had served a term in the New York State Prison), a member of the Board of Supervisors, and who had powerful influence over the political caucuses of his party. He was charged with selling nominations for a price, and with furnishing bullies and ballot-box stuffers to elect his nominees; also, with procuring the passage of fraudulent bills through the Board of which he was a member. On May

14th Casey murdered Mr. King by shooting him in the street, and then gave himself into the hands of the authorities. The Vigilance Committee, which had not been in active service since 1851, reorganized in better style than before, and took possession of the city, but did not interfere with the administration of justice in civil suits or in petty criminal cases. The city prison was strongly guarded till the 18th, when a formidable force from the committee demanded Casey, who was surrendered by the Sheriff and taken to the cells of the committee. Charles Cora, a gambler, who had shot Mr. Richardson, the United States Marshal, was also taken from the prison, and after trial, on the 22d of May both were hung in front of the committee's rooms, the people and press sustaining the proceeding. On June 2d a writ of habeas corpus was issued by Justice Terry of the Supreme Court for the rescue of a prisoner in the hands of the committee. No attention was paid to the writ, and on the following day Governor Johnson proclaimed San Francisco in a state of insurrection, ordered out the militia of the city, and commanded the Vigilance Committee to disband and disburse. Very few, even of those opposed to the committee, responded to the call, and practically the power of the State was, for a time, in the hands of the committee. The Governor called on General Wool for United States troops without success; also on the President of the United States. In the meantime the committee continued their labors, banishing prisoners to the Atlantic States, Australia, and the Pacific Islands. Judge Terry, in opposing the arrest of a person who was in his company, stabbed one of the committee's police; the Judge was subsequently arrested and kept prisoner till the man's recovery. A few weeks later the committee surrendered its power, having during its administration of public affairs tried and disposed of some thirty cases brought before them. Four of their prisoners were executed, one committed suicide while his case was under deliberation, and most of the others were banished from the State. The ensuing election resulted in the choice of city and county officers favorable to the committee, and the city has ever since been comparatively quiet and orderly.

Thus by almost a universal—a national—effort, was our beautiful country, which had so long contained and been defiled by the sweepings from the prisons and the thieves' alleys of other lands, once more made pure, sweet, and safe. Hercules did no greater labor when he cleansed the Augean stable by turning a river through it. The people of California, and more particularly the people of San Francisco, had turned the great stream of justice from its former slow, devious, and uncertain course, and sent its waters headlong to overwhelm criminals and wash society clean from the stains that crime had left.

EDUCATION.—The first American school in San Francisco was a private enterprise. It was held in a little shanty, and continued about one year, having been opened in April, 1847. In the latter part of the same year the first public school house was built. It was a small cottage, its site being the southwest corner of Portsmouth Square, where Brenham Place enters Clay

street. This building was demolished in 1850, that the plaza might be maintained as a completely open and unencumbered square. This school house was in early times the general assembly room of societies of different characters, for religious gatherings, and for public amusements. In 1848 the first Board of School Trustees was appointed, and under their supervision the first public school of San Francisco was opened. This prospered for a couple of months; then news of the discovery of gold in the interior reached San Francisco, and most of the inhabitants with their children left for the gold region; the Board of Trustees were scattered; there were no funds provided for the support of the school, and finally, the teacher, left without pupils or salary, was himself obliged to follow in the wake of the general excitement. The first free school was established in 1849, with J. C. Pelton as teacher. In 1851 the City Government elected the first Board of Education, and this Board appointed T. J. Nevins first Superintendent of Public Schools.

RELIGION.—The first Protestant clergyman, the Rev. T. D. Hunt, arrived in San Francisco in October, 1848, having been invited from Honolulu where he was a missionary, by prominent citizens of different religious persuasions. He first held public religious services in the school house on the plaza. The first place erected especially for religious worship was a tent, situated on Dupont street, between Pacific street and Broadway. For this congregation an edifice was built in New York, and forwarded from there entire, with pulpit, seats, lamps and bell. On its arrival this was erected, in 1850, on Stockton street, near Broadway, and was then occupied by the congregation who had previously worshipped in the tent on Dupont street. Previous to the erection of this building, the Society known as the "First Baptist Church" had built a house for religious worship on Washington street, between Dupont and Stockton streets.

BENEVOLENT INSTITUTIONS AND SOCIETIES.—The sufferings consequent upon the long voyage which most of the earlier immigrants to California were obliged to make, the want of comfortable dwellings to protect them from the inclemencies of the weather, and the absence of many comforts and nearly all the luxuries of life, produced so much sickness, poverty and distress, that, at a very early day, associations were formed for mutual assistance and systematic benevolence. So early as 1849 the Free Masons and Odd Fellows had established lodges, and these were followed by the organizing of a temperance society, Society of California Pioneers (August, 1850), benevolent societies for French, Germans and Hebrews, orphan asylums, both Protestant and Catholic, and many other associations for private benevolence and general usefulness.

CEMETERIES.—Perhaps nothing better illustrates the spirit and condition of society in the early times of California than the manner of disposing of the bodies of the dead. In the earlier times, when there was but a small number of inhabitants, the church-yard at the Mission had been the general place of deposit for the dead; but when the town had become peopled with a larger population of emigrants, strangers to each other, and with no stronger local

interest than the gaining of gold, the living could ill afford the time required for accompanying the dead to a final resting place a mile or two distant, over almost impassable sand-hills. Although there was a City Hospital, it was always filled to overflowing; and many a lonely sufferer, found dead, was buried in the sand near the tent which had been the scene of his last suffering. There was a small burying-ground on the top of Russian Hill, which some years before had been thus used by Russian settlers; also a dreary spot on the side of Telegraph Hill was devoted to this purpose; and still later a piece of ground near North Beach. In 1850, what was then considered a large tract of land, was legally and formally set apart as a public burial place, under the name of the Yerba Buena Cemetery, being the present site of the new City Hall, from which the bones of the dead had to be removed before converting the ground to its present use. In 1854 Laurel Hill Cemetery was dedicated to the slumbers of the dead; and still later, Calvary, Masonic, and Odd Fellows' cemeteries have been alike consecrated. The former of these lies north of Point Lobos avenue, and the latter south of the same, and all about midway between the Presidio reservation on the north and on the south, the avenue forming the entrance to the Golden Gate Park. Calvary Cemetery is owned by the Catholics. Besides these there are also two Jewish cemeteries, consecrated as the final resting-place of believers in the Hebrew faith. These latter two are situated from two to four blocks south of the old Mission Church, and about the same distance west of the San José Railroad.

TELEGRAPHS.—In 1849 a station-house was erected on the summit of Telegraph Hill which commanded a view of the Golden Gate. From there the approach and character of all vessels coming into the harbor was signaled to merchants in the city and others. This was a private enterprise supported by voluntary contributions. Afterwards another station was erected at Point Lobos. This was in full view of Telegraph Hill, so that the signals could be communicated to the latter station, while from Point Lobos vessels could be distinguished many miles at sea. In 1853 the first electric telegraph in California was opened. This was eight miles in length, and extended from San Francisco to Point Lobos.

NEWSPAPERS.—The first newspaper in San Francisco appeared in January, 1847. It was published once a week, and bore the name of *The California Star*.

BOUNDARIES.—By an Act approved April 18th, 1856, the several charters granted to San Francisco were repealed, the governments of the City and County of San Francisco were consolidated, and their boundaries fixed and made co-incident. This is called the Consolidation Act. It took effect July 1st, 1856. The boundaries of the City and County of San Francisco are as follows: Beginning on the western boundary with a line separating townships two and three south (Mount Diablo meridian); thence running northerly and parallel to the shore so as to be three miles therefrom opposite Seal Rock; thence in the same general direction to a point three miles from shore on the northerly side of the entrance to the Bay of San Francisco; thence to

low water mark on the northerly side of said entrance at a point opposite Fort Point; thence following said low water mark to a point due northwest of Golden Rock; thence due southeast to a point within three miles of the natural high water mark on the eastern shore of the Bay of San Francisco; thence in a southerly direction to a point three miles from said eastern shore and on the line first named; thence along said line to the starting point.

The islands in the bay known as "Alcatraz" and "Yerba Buena," and the islands in the ocean known as the "Farallones," also form a part of the City and County of San Francisco.

The town as first laid off was composed of lots 50 varas ($137\frac{1}{2}$ feet) square, with six lots in a block. Afterwards, lots between Market street and Mission Creek were laid out 100 varas (275 feet) square; and various sizes were adopted south of Mission Creek. The vara is the Spanish yard, and is equal to thirty-three inches of American measurement.

ELECTIONS.—The Consolidation Act fixes the day for the election of City and County officers (that of Judges excepted), to be the same as prescribed for general elections throughout the State. In years when no general election is provided for by law, these elections shall be held on the first Wednesday of September.

The City and County officers are elected for two years; their term of office begins the first of December.

SPANISH NAMES.—Meaning of Spanish names of some places in the vicinity of San Francisco:

Alameda—A grove of elms.

Saucelito—A clump of willows.

Contra Costa—The opposite coast.

Point Lobos—Seals' Point.

Point Bonita—Pretty point.

Farallones—Points of rock in the sea.

Alcatraz—Pelican.

Rincon—Corner.

The Spanish word *Alamo* means elm, but is applied in California where there are no indigenous elms, to the cottonwood, and an avenue or collection of cottonwood trees is called an *Alameda*.

Lobos means wolves, but as applied to Point Lobos means Seals' Point, the Spanish name having been *La Punta de los Lobos Marinos*. *Lobos Marinos*, literally, Sea wolves, is the Spanish name for seals.

A vara is a Spanish yard; it is equal to about thirty-three and one-third English inches. The town of San Francisco was laid out in lots of fifty varas each; six lots constituted one block, bounded by four streets.

DESCRIPTION OF THE REAL ESTATE

BELONGING TO THE

SCHOOL DEPARTMENT.

Block 47.—Commencing on the north line of Broadway, $137\frac{1}{2}$ feet west from Sansome street; thence west on Broadway $68\frac{3}{4}$ feet, by $137\frac{1}{2}$ in depth. Easterly half of 50-vara lot 193. Purchased of Alfred DeWitt, August 9, 1870, for \$15,000.

Improvements.—Two-story frame building. Erected in 1871; cost \$14,617.

Block 62.—Commencing on the north line of Union street, $137\frac{1}{2}$ feet west of Montgomery street; thence west on Union street $137\frac{1}{2}$ feet, by $137\frac{1}{2}$ feet in depth. 50-vara lot 418. Deeded by executors of estate of Jos. L. Folsom, November 18, 1857.

Improvements—Two-story brick building, 46 by 99 feet. Erected in 1854; cost \$33,321. Alterations and repairs in July, 1864, \$1,734; in December, 1866, \$1,900.

Block 82.—Lot on northwest corner of Filbert and Kearny streets, $137\frac{1}{2}$ by $137\frac{1}{2}$ feet. 50-vara lot 462. Deeded by Commissioners of Funded Debt, August 3, 1858.

Improvements.—Two-story frame building, 50 by 76. Erected in 1867; cost \$8,000.

Block 118.—Lot on southeast corner of Bush and Stockton streets, 137 6-12 feet by 137 6-12 feet. 50-vara lot 301. Deeded by Commissioners of Funded Debt, August 3, 1858.

Improvements.—Three-story frame building, fronting on Bush street, 56 by 92 feet, with two wings, each $10\frac{1}{2}$ by $39\frac{1}{2}$ feet. Cost \$26,390.

Two-story brick building corner of Bush and Stockton streets, 30 by 70 feet. Cost \$11,300. Erected in 1854. Alterations and repairs in July, 1877, \$792.

Block 119.—Commencing on the north line of Post street, $192\frac{1}{2}$ feet east from Stockton street; thence east on Post street 70 feet; north $72\frac{1}{2}$ feet; west $1\frac{1}{4}$ feet; north 50 feet, to Stockton place; west on Stockton place $68\frac{3}{4}$ feet; south $122\frac{1}{2}$ feet, to the place of beginning. Part of 50-vara lot 581. Received from Elkan S. Kohn in exchange for part of 100-vara lot No. 174, July 17, 1866.

Improvements—Two-story brick building, 36 x 70 feet, exclusive of wings, fronting on Post street. Erected, 1866; cost, \$12,000.

Two-story brick building—improvement of old building—57 by 37 feet, fronting on Stockton place. Cost \$8,043.

Block 137—Lot 1.—Commencing on the east line of Powell street, 68 9-12 feet south from Clay street; thence south on Powell street 68 9-12 feet; east 137½ feet; north 62½ feet; west 79 feet; north 6 3-12 feet; west 58½ feet, to the place of beginning. Part of 50-vara lot 121. Purchased August 30 and September 1, 1859, from Jeremiah Clarke (\$1,100) and Wm. Ingraham Kip (\$8,000) for \$9,100.

Lot 2.—Commencing on the south line of Clay street, 111 4-12 feet east from Powell street; thence east on Clay street 26 2-12 feet, by 75 feet in depth. Purchased August 28, 1867, from Wm. A. Piper, for \$1,800.

Improvements.—Two-story brick and frame building, 32 by 88 feet, with two wings, each 17 4-12 by 32 9-12 feet, fronting on Powell street. Cost of grading and bulkhead walls, \$3,475; cost of building, \$14,487. Dedicated September 17, 1860.

Block 157—Lot 1.—Commencing on the north line of Broadway, 137½ feet west from Powell street; thence west on Broadway 65 2-12 feet, by 137½ feet in depth. Part of 50-vara lots Nos. 164 and 167.

Lot 2.—Commencing on the north line of Broadway, 107½ feet west from Powell street; thence west on Broadway 30 feet, by 91 8-12 feet in depth.

Lot 3.—Commencing on the north line of Broadway, 67 9-12 feet west from Powell street; thence west on Broadway 39 9-12 feet, by 91 8-12 feet in depth.

Lot 1.—Received in exchange for part of 100-vara lot No. 174, June 29, 1866, from Selden S. Wright.

Lots 2 and 3.—Purchased from Zacheus Cheny, December 14, 1863, for \$6,000. Were afterwards claimed by Wm. Hale, and the Board of Education was forced to re-purchase, judgment having been rendered against the Department at \$2,250, September 4, 1866. Release by Wm. Hale, August 31, 1866. Consideration, \$1,250.

Improvements.—Three-story brick building, altered from old Jewish Synagogue at a cost of \$12,910.

Block 160.—Commencing on the west line of Powell street, 68 9-12 feet south of Jackson street; thence south on Powell street 68 9-12 feet, by 137½ feet in depth. South half of 50-vara lot 159. Purchased June 27, 1860, from Henry Pierce, for \$8,800.

Improvements.—Two-story frame building, 27 by 80½ feet. Erected in 1851, and purchased with the lot.

Block 183.—Lot on the northeast corner of Taylor and Vallejo streets, $137\frac{1}{2}$ by $137\frac{1}{2}$ feet. 50-vara lot 663. Deeded by Commissioners of Funded Debt, August 3, 1858.

Improvements.—One-story frame building, $30\frac{1}{4}$ by $75\frac{1}{2}$ feet. Erected in April, 1864; cost \$4,435.24.

Block 188.—Lot on southwest corner of Washington and Mason streets, $137\frac{1}{2}$ by $137\frac{1}{2}$ feet. 50-vara lot 602.

Purchased Sept. 10, 1860, from Caroline Weaver, for \$9,000.

Improvements.—Two-story and basement frame building, 81 3-12 by 62 3-12 feet fronting on Mason street. Erected in 1861. Cost of building, fencing and grading, \$17,117. Alterations made in July, 1869, at a cost of \$1,965.

Bulkhead constructed October, 1873, on the west and a portion of the south line of lot, at a cost of \$2,670.

Block 208.—Lot 1.—Commencing on the north line of Filbert street, $142\frac{1}{2}$ feet east from Jones street; thence east on Filbert street 100 feet, north 120 feet to Valparaiso street; west on Valparaiso street 60 feet; south 60 feet; west 40 feet; south 60 feet to the place of beginning. Part of 50-vara lot 446.

Donated by Board of Supervisors.

Lot 2.—Commencing on the south line of Valparaiso street, $142\frac{1}{2}$ feet east from Jones street; thence east on Valparaiso street, 40 feet by 60 feet in depth.

Purchased from T. S. Spring, Chas. Welsh and James A. Gauley, Aug. 27, 1867, for \$760.

Improvements.—Three-story frame building, 49 by 71 feet, fronting on Filbert street. Cost, \$15,500. Date of contract, Oct. 26, 1866.

Block 220.—Lot on northwest corner of Bush and Taylor streets, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet. 50-vara lot 1023.

Purchased Oct. 23, 1862, from Wm. H. Sharp, for \$11,800.

Improvements.—Three-story brick building, with Mansard roof and eupola, $98\frac{1}{2}$ by 61 feet, fronting on Bush street. Erected in 1864. Cost, \$52,864. Dedicated Sept. 22, 1864.

Block 237.—Commencing on the south line of Greenwich street, $137\frac{1}{2}$ feet west from Jones street; thence west on Greenwich street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. 50-vara lot 482.

Received from the Board of Supervisors in exchange for 50-vara lot No. 695, corner of Francisco and Stockton streets, May 14, 1857.

Improvements.—Three-story frame building. Erected July, 1875. Cost, \$29,825.

Block 302.—Commencing on the north line of Washington street, $137\frac{1}{2}$ feet west from Hyde street; thence west on Washington street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. 50-vara lot 1378.

Block 307.—Commencing on the north line of Bush street, 40 feet west from Hyde street; thence west on Bush street, $97\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Part of 50-vara lot 1320. Purchased June 18, 1860, from Nathan P. Hopkins, for \$2,000.

Improvements—Three-story and basement frame building, 54 8-12 feet by 82 4-12 feet, with two wings, each 21 5-12 feet by $50\frac{1}{2}$ feet. Cost, \$29,666.84. Opened July 5, 1871.

Block 348—Lot 1.—Commencing on the southeast line of Tehama street, 297 2-12 feet southwest from First street; thence southwest on Tehama street, 28 feet by 75 feet in depth. Part of 100-vara lots 46 and 47.

Lot 2.—Commencing on the southeast line of Tehama street, 207 2-12 feet southwest from First street; thence southwest on Tehama street, 90 feet by 75 feet in depth.

Purchased from Moses Ellis July 6, 1864, for \$7,500.

Lot 3.—Commencing on the southwest line of Ecker street, 40 feet northwest from Clementina street; thence northwest on Ecker street 40 feet, by 80 feet in depth.

Purchased from Christopher Reilly, December 2, 1870, for \$3,200.

Lot 4.—On the north corner of Clementina and Ecker streets, being 50 feet on Clementina street by 80 feet in depth on Ecker street.

Purchased from Mrs. C. Dwyer, Oct. 29, 1870, for \$6,000.

Improvements.—Three-story brick building, 52 by 75 feet. Erected in 1866. Cost, \$27,910.

Block 358—Lot 1.—Commencing on the southwest line of Vassar Place 175 feet southeast from Harrison street; thence southwest 75 feet to Perry street; southeast 100 feet; northeast 185 feet; northwest 100 feet; southwest 110 feet to the place of beginning. Part of 100-vara lots 76 and 87.

Received in exchange for 50-vara lot No. 732, Nov. 23, 1863. Quit claim deed of J. Clark, March 19, 1859—\$4,000.

Lot 2.—Commencing on the northwest line of Silver street, 176 feet southwest from Second street; thence southwest on Silver street, 24 feet by 70 feet in depth.

Purchased from Melville Kelsey and wife, Aug. 15, 1867, for \$3,000.

Lot 3.—Commencing on the northwest line of Silver street, 156 feet southwest from Second street; thence southwest on Silver street, 20 feet by 70 feet in depth.

Purchased from Thos. Connell and wife, Nov. 20, 1867, for \$2,500.

Lot 4.—Commencing on the northwest line of Silver street, 112 feet southwest from Second street; thence southwest on Silver street, 44 feet by 70 feet in depth.

Purchased from Stephen T. King, May 8, 1867, for \$4,000.

Improvements.—Two-story frame building, 50 by 50 feet, with two wings, each 18 by 25 feet. Erected in 1861. Cost, \$10,566. Building moved and altered, March, 1875. Cost, \$4,545. Also, three-story frame building, erected August, 1875. Cost, \$31,997.

Block 371.—Lot on the east corner of Market and Fifth streets, 275 by 275 feet. 100-vara lot 128.

Deeded by Commissioners of the Funded Debt, Aug. 8, 1858. Three story and basement brick building, $63\frac{1}{4}$ by $141\frac{1}{2}$ feet. Projecting portions east and west fronts, 18 by 33 feet.

Erected in 1865. Cost, \$93,940. Partially destroyed by fire Feb. 22, 1871. Rebuilt at a cost of \$26,762.09. Two 2-story frame buildings, containing eight class-rooms each.

Under Act of the Legislature of March 30, 1874, the Board of Supervisors leased for a term of twenty years a portion of this lot 275 feet on Market street by a depth of 100 feet, the amount of lease aggregating \$536,100 for the term named. (See Reports 1874-75, page 755).

Block 374.—Lot on the west corner of Fourth and Clary streets, fronting 80 feet on Fourth street by 150 feet in depth on Clary street. Part of 100-vara lot 174.

Deeded by Commissioners of the Funded Debt—that is, the whole of 100-vara lot No. 174—Aug. 3, 1858; afterwards part of same exchanged for Post street lot.

Improvements.—Two-story frame building, 30 by 72 feet. Erected in 1863. Cost, \$5,190.

Block 397.—Commencing on the northwest line of Bryant street, distant 182 feet northeast from the north corner of Bryant and Seventh streets; thence northwesterly 275 feet; thence northeasterly $92\frac{1}{2}$ feet; thence southeasterly 275 feet; thence southwesterly $92\frac{1}{2}$ feet, to the place of beginning; part of 100-vara lot No. 253.

Purchased from John Jones, April 7, 1875, for \$20,000.

Improvements.—Three-story frame building. Erected in 1875. Cost, \$28,794.

Block 410.—Part of 100-vara lots 274 and 275.—Lot 1.—Commencing on the northeast line of Eighth street, 160 feet northwest from Bryant street; thence northwest on Eighth street, 115 feet by 275 feet in depth.

Received from Board of Supervisors in exchange for 100-vara lot No. 258, April 20, 1859.

Lot 2.—Commencing on the northeast line of Eighth street, 275 feet northwest from Bryant street; thence northwest on Eighth street, 25 feet by 165 feet in depth.

Purchased of Alvinza Hayward, May 19, 1870.

Improvements.—Three-story frame building, $51\frac{1}{4}$ by $79\frac{1}{2}$ feet, with two wings, each 38 1-6 by 34 7-12 feet. Cost, \$25,860. Two-story frame building, 50 by 76 feet. Cost, \$8,000.

Mission Block 8.—Commencing on the southeast line of Harrison street, 136 3-12 feet northeast from Eleventh street; thence northeast on Harrison street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth.

Van Ness Reservation. Quit-claim deed to portion of lot $137\frac{1}{2}$ by 68 feet, by Wm. T. Shaw, October 2, 1865.

Mission Block 21.—Commencing on the west line of Mission street, $206\frac{1}{4}$ feet south of Hermann street; thence south on Mission street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth.

Van Ness Reservation.

Mission Block 35.—Commencing on the west line of Mission street, 160 feet north from Sixteenth street; thence north on Mission street, 200 feet by 182 feet in depth.

Purchased September 19, 1859, from Egbert Judson and John Center, for \$1,350.

Improvements.—Two-story frame building, $61\frac{1}{3}$ by $62\frac{1}{4}$ feet. Erected in 1860. Cost, \$11,383. Three-story frame building. Erected July, 1875. Cost, \$28,225.

Mission Block 61.—Commencing on the north line of Nineteenth street, $206\frac{1}{4}$ feet east from Mission street; thence east on Nineteenth street $38\frac{3}{4}$ feet by $137\frac{1}{2}$ feet in depth. Also, lot commencing on the north line of Nineteenth street, 305 feet east from Mission street; thence east on Nineteenth street, $38\frac{3}{4}$ feet by $137\frac{1}{2}$ feet in depth.

Van Ness Reservation.

Mission Block 93.—Commencing on the west line of Church street, $191\frac{1}{4}$ feet north from Nineteenth street; thence north on Church street $36\frac{3}{4}$ feet, by $137\frac{1}{2}$ feet in depth. Also, lot commencing on the west line of Church street, 292 feet north from Nineteenth street; thence north on Church street, $36\frac{3}{4}$ feet by $137\frac{1}{2}$ feet in depth.

Van Ness Reservation.

Mission Block 104.—Commencing on the south line of Sixteenth street, $211\frac{1}{4}$ feet west from Sanchez street; thence west on Sixteenth street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth.

Van Ness Reservation.

Mission Block 136.—Commencing on the east line of Valencia street, 55 feet south from Twenty-second street; thence south on Valencia street, 150 feet by 250 feet in depth to Bartlett street.

Outside Land Reservation.

Improvements.—Three-story frame building, $51\frac{1}{2}$ by $79\frac{1}{2}$ feet, with two wings, each 38 1-6 by 34 7-12 feet. Cost, \$25,860. Building dedicated Dec. 16, 1872.

Mission Block 138.—Commencing on the east line of Shotwell street, $137\frac{1}{2}$ feet north from Twenty-third street; thence north on Shotwell street, $122\frac{1}{2}$ feet by $122\frac{1}{2}$ feet in depth.

Donated by John Center, April 5, 1867.

Improvements.—Two-story frame building, 50 by 76 feet. Erected in 1867. Cost, \$8,000.

Mission Block 147.—Commencing on the east line of Bryant avenue, 185 feet north from Twenty-third street; thence north on Bryant avenue, 150 feet by 200 feet in depth to York street.

Outside Land Reservation.

Mission Block 178.—Commencing on the east line of Columbia street, 185 feet north from Twenty-sixth street; thence north on Columbia street 150 feet; east, 100 feet; south, 50 feet; east, 100 feet to Bryant avenue; south on Bryant avenue, 100 feet; west, 200 feet, to the place of beginning.

Outside Land Reservation.

Improvements.—Three-story frame building. Erected July, 1876. Cost, \$25,700.

Mission Block 183.—Commencing on the west line of Mission street, 185 feet south from Twenty-fifth street; thence south on Mission street, 150 feet by $117\frac{1}{2}$ feet in depth.

Outside Land Reservation.

Block 3, W. A.—Commencing on the north line of Grove street, $137\frac{1}{2}$ feet west from Larkin street; thence west on Grove street, $137\frac{1}{2}$ feet by 120 feet in depth. 50-vara lot 2.

Van Ness Reservation.

Quit-claim deed from F. McCoppin, John R. McKee and John Sullivan. Original building, frame, $55\frac{1}{2}$ by $61\frac{1}{3}$ feet. Erected in 1862. Cost, \$6,808. Addition made in 1865. Cost, \$2,590. Raised and again enlarged in 1872, at a cost of \$6,545.

Block 14, W. A.—Lot 6 and part of lot 5.—Lot 1.—Commencing at the southwest corner of Pine and Larkin streets; thence west on Pine street, $137\frac{1}{2}$ feet by 120 feet in depth.

Van Ness Reservation.

Lot No. 2.—Commencing on the south line of Pine street, $137\frac{1}{2}$ feet west from Larkin street; thence west on Pine street, $62\frac{1}{4}$ feet by 120 feet in depth.

Deed to both lots, 200 by 120, from Abel Guy, consideration \$1, May 6, 1867. Also, deed 200 by 120, from C. C. Butler, May 13, 1867, for \$5,989.76.

Improvements.—Two-story frame building, 50 by 76 feet. Erected in 1867. Cost, \$8,000. One-story frame building, 37 by 97 feet. Erected in 1857. Cost, \$3,700.

Block 21, W. A.—Commencing on the south line of Broadway, $137\frac{1}{2}$ feet west from Larkin street; thence west on Broadway, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. 50-vara lot 5.

Van Ness Reservation.

Improvements.—Two-story frame building, 60 by 86 feet. Erected and enlarged in 1866; cost, \$13,423. Originally a one-story building, erected in 1865. Raised and enlarged in 1875. Cost, \$7,650.

Block 29, W. A.—Commencing on the south line of Francisco street, $137\frac{1}{2}$ feet west from Larkin street; thence west on Francisco street $137\frac{1}{2}$ feet, by $137\frac{1}{2}$ feet in depth. 50-vara lot 5.

Van Ness Reservation.

Block 62, W. A.—Commencing on the north line of Eddy street, $137\frac{1}{2}$ feet west from Polk street; thence west on Eddy street $137\frac{1}{2}$ feet, by 120 feet in depth. 50-vara lot 2.

Van Ness Reservation.

Improvements.—Three-story frame building, erected July, 1875. Cost, \$37,400.

Block 111, W. A.—Commencing on the south line of Bay street, $137\frac{1}{2}$ feet west from Franklin street; thence west on Bay street $137\frac{1}{2}$ feet, by $137\frac{1}{2}$ feet in depth. 50-vara lot 5.

Van Ness Reservation.

Block 117, W. A.—Commencing on the south line of Union street, $137\frac{1}{2}$ feet west from Franklin street; thence west on Union street $137\frac{1}{2}$ feet, by $137\frac{1}{2}$ feet in depth. Lot 5.

Van Ness Reservation.

Improvements.—One-story frame building, erected April 25, 1857. Cost, \$3,900.

Block 123, W. A.—Commencing on the south line of Washington street, $137\frac{1}{2}$ feet west from Franklin street; thence west on Washington street $137\frac{1}{2}$ feet, by $137\frac{1}{2}$ feet in depth. Lot 5.

Van Ness Reservation.

Block 136, W. A.—Commencing on the north line of McAllister street, $137\frac{1}{2}$ feet west from Franklin street; thence west on McAllister street, $137\frac{1}{2}$ feet by 120 feet in depth. Lot 2.

Van Ness Reservation.

87½ feet of eastern portion of the lot purchased of Louis E. Ritter, Sept. 8, 1870, for \$7,636.30, judgment having been rendered against the Department for the same.

Improvements.—Three-story frame building, 51⅓ by 79 1-12 feet, with two wings, each 38 1-6 by 34 7-12 feet. Erected in 1870. Cost, \$25,860.

Block 158, W. A.—Commencing on the north line of Sutter street, 137½ feet west from Gough street; thence west on Sutter street, 137½ feet by 120 feet in depth. Lot 2.

Van Ness Reservation.

Improvements.—Three-story frame building. Erected in 1875. Cost, \$37,400.

Block 253, W. A.—Lot 1.—Commencing on the south line of Geary street, 60 feet west from the southwest corner of Geary and Jones streets; thence west 57½ feet; south, 68½ feet; west, 20 feet; south, 69 feet; east, 77½ feet; north, 137½ feet, to the place of beginning. Part of 50-vara lot No. 1091.

Lot 2.—Commencing on the south line of Geary street, 117½ feet west from the southwest corner of Geary and Jones streets; thence west 20 feet, by 68½ feet in depth.

Lot 1.—Purchased from Michael Farrell January 15, 1875, for \$15,500.

Lot 2.—Purchased from Margaret Newell, Mary E. Newell, Daniel P. Newell, Kate A. Newell, and Sabina T. Newell, July 20, 1875, for \$6,500.

Improvements—Three-story frame building. Erected in 1876. Cost, \$33,500.

Block 281, W. A.—Commencing on the south line of Turk street, 137½ feet west from Buchanan street; thence west on Turk street, 137½ feet by 120 feet in depth. Lot 5.

Van Ness Reservation.

Block 318, W. A.—Commencing on the north line of Jackson street, 137½ feet west from Webster street; thence west on Jackson street, 137½ feet by 137½ feet in depth. Lot 2. Van Ness Reservation.

Improvements.—One-story frame building, 29¼ feet by 46 feet. Erected in 1865. Cost, \$2,167.84. Moved from school lot on Pine street, between Scott and Devisadero streets, in November, 1875.

Block 325, W. A.—Commencing on the north line of Greenwich street, 137½ feet west from Webster street; thence west on Greenwich street, 137½ feet by 120 feet in depth. 50-vara lot 2. Van Ness Reservation.

Block 374, W. A.—Commencing at the southwest corner of Kate and Fillmore streets; thence west on Kate street, 137½ feet; south 213 feet to Ridley street; east on Ridley street 140 feet; north on Fillmore street 227 feet to the place of beginning. Lot No. 6. Van Ness Reservation.

Block 433, W. A.—Commencing on the north line of Tyler street, $137\frac{1}{2}$ feet east from Scott street; thence east on Tyler street, 100 feet by $137\frac{1}{2}$ feet in depth. Part of lot 2. Received from Wm. Hollis in exchange for lot No. 2, Block 431, W. A., June 18, 1867.

Improvements.—One-story frame building, 50' by 70 feet. Erected in 1867. Cost, \$4,370.

Block 460, W. A.—Commencing on the north line of Pine street, $137\frac{1}{2}$ feet west from Scott street; thence west on Pine street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 2. Van Ness Reservation.

Block 465, W. A.—Commencing on the north line of Jackson street, $137\frac{1}{2}$ feet west from Scott street; thence west on Jackson street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 2. Van Ness Reservation.

Block 523, W. A.—Commencing on the south side of Page street, $137\frac{1}{2}$ feet west from Broderick street; thence west on Page street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 5. Outside Land Reservation.

Block 530, W. A.—Commencing on the north line of McAllister street, $137\frac{1}{2}$ feet west from Broderick street; thence west on McAllister street $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 2. Outside Land Reservation.

Block 546, W. A.—Commencing on the north line of Pacific avenue, $137\frac{1}{2}$ feet west from Broderick street; thence west on Pacific avenue $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 2. Outside Land Reservation.

Block 553, W. A.—Commencing on the north line of Lombard street, $137\frac{1}{2}$ feet west from Broderick street; thence west on Lombard street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 2. Outside Land Reservation.

Block 657, W. A.—Commencing on the south line of Haight street, $137\frac{1}{2}$ feet west from Lott street; thence west on Haight street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 5. Outside Land Reservation.

Block 810, W. A.—Commencing on the north line of Broadway, $137\frac{1}{2}$ feet west from Walnut street; thence west on Broadway, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 2. Outside Land Reservation.

Block 815, W. A.—Commencing on the south line of Clay street, $137\frac{1}{2}$ feet west from Walnut street; thence west on Clay street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 5. Outside Land Reservation.

Block 841, W. A.—Commencing on the north line of Pacific avenue, $137\frac{1}{2}$ feet west from Maple street; thence west on Pacific avenue, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 2. Outside Land Reservation.

Block 848, W. A.—Commencing on the south line of Clay street, 220 feet west from Cherry street; thence west on Clay street, $137\frac{1}{2}$ feet by $137\frac{1}{2}$ feet in depth. Lot 5. Outside Land Reservation.

Block 95, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from California street; thence south on Twenty-fifth avenue, 150 feet by 240 feet in depth to Twenty-fourth avenue. Outside Land Reservation.

Block 152, west of 1st Av.—Commencing on the east line of Thirty-first avenue, 225 feet south from California street; thence south on Thirty-first avenue, 150 feet by 240 feet in depth to Thirtieth avenue. Outside Land Reservation.

Block 164, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from California street; thence south on Nineteenth avenue, 150 feet by 240 feet in depth to Eighteenth avenue. Outside Land Reservation.

Block 170, west of 1st Av.—Commencing on the east line of Thirteenth avenue, 225 feet south from California street; thence south on Thirteenth avenue, 150 feet by 240 feet in depth to Twelfth avenue. Outside Land Reservation.

Block 176, west of 1st Av.—Commencing on the east line of Seventh avenue, 225 feet south from California street; thence south on Seventh avenue, 150 feet by 240 feet in depth to Sixth avenue. Outside Land Reservation.

Block 242, west of 1st Av.—Commencing on the east line of Forty-third avenue, 225 feet south from Point Lobos avenue; thence south on Forty-third avenue, 150 feet by 240 feet in depth, to Forty-second avenue. Outside Land Reservation.

Block 248, west of 1st Av.—Commencing on the east line of Thirty-seventh avenue, 225 feet south from Point Lobos avenue; thence south on Thirty-seventh avenue, 150 feet by 240 feet in depth, to Thirty-sixth avenue. Outside Land Reservation.

Block 254, west of 1st Av.—Commencing on the east line of Thirty-first avenue, 225 feet south from Point Lobos avenue; thence south on Thirty-first avenue, 150 feet by 240 feet in depth, to Thirtieth avenue. Outside Land Reservation.

Block 260, west of 1st Av.—Commencing on the west line of Twenty-fourth avenue, 225 feet south from Point Lobos avenue; thence south on Twenty-fourth avenue, 150 feet by 120 feet in depth. Outside Land Reservation.

Block 266, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from Point Lobos avenue; thence south on Nineteenth avenue, 150 feet by 240 feet in depth, to Eighteenth avenue. Outside Land Reservation.

Improvements.—One-story frame building. Erected August, 1870. Cost, \$5,450.

Block 272, west of 1st Av.—Commencing on the east line of Thirteenth avenue, 225 feet south from Point Lobos avenue; thence south on Thirteenth avenue, 150 feet by 240 feet in depth, to Twelfth avenue. Outside Land Reservation.

Block 278, west of 1st Av.—Commencing on the east line of Seventh avenue, 225 feet south from Point Lobos avenue; thence south on Seventh avenue, 150 feet by 240 feet in depth, to Sixth avenue. Outside Land Reservation.

Block 339, west of 1st Av.—Commencing on the east line of Forty-third avenue, 225 feet south from B street; thence south on Forty-third avenue, 150 feet by 240 feet in depth, to Forty-second avenue. Outside Land Reservation.

Block 345, west of 1st Av.—Commencing on the east line of Thirty-seventh avenue, 225 feet south from B street; thence south on Thirty-seventh avenue, 150 feet by 240 feet in depth, to Thirty-sixth avenue. Outside Land Reservation.

Block 351, west of 1st Av.—Commencing on the east line of Thirty-first avenue, 225 feet south from B street; thence south on Thirty-first avenue, 150 feet by 240 feet in depth, to Thirtieth avenue. Outside Land Reservation.

Block 357, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from B street; thence south on Twenty-fifth avenue, 150 feet by 240 feet in depth, to Twenty-fourth avenue. Outside Land Reservation.

Block 363, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from B street; thence south on Nineteenth avenue, 150 feet by 240 feet in depth, to Eighteenth avenue. Outside Land Reservation.

Block 369, west of 1st Av.—Commencing on the east line of Thirteenth avenue, 225 feet south from B street; thence south on Thirteenth avenue, 150 feet by 240 feet in depth, to Twelfth avenue. Outside Land Reservation.

Block 375, west of 1st Av.—Commencing on the east line of Seventh avenue, 225 feet south from B street; thence south on Seventh avenue, 150 feet by 240 feet in depth, to Sixth avenue. Outside Land Reservation.

Block 395, west of 1st Av.—Commencing on the east line of Sixteenth avenue, 225 feet south from C street; thence south on Sixteenth avenue, 150 feet by 240 feet in depth, to Fifteenth avenue. Outside Land Reservation.

Block 407, west of 1st Av.—Commencing on the east line of Twenty-eighth avenue, 225 feet south from C street; thence south on Twenty-eighth avenue, 150 feet by 240 feet in depth, to Twenty-seventh avenue. Outside Land Reservation.

Block 418, west of 1st Av.—Commencing on the east line of Thirty-ninth avenue, 225 feet south from C street; thence south on Thirty-ninth avenue, 150 feet by 240 feet in depth, to Thirty-eighth avenue. Outside Land Reservation.

Block 673, west of 1st Av.—Commencing on the east line of Second avenue, 225 feet south from I street; thence south on Second avenue, 150 feet by 240 feet in depth, to First avenue. Outside Land Reservation.

Block 678, west of 1st Av.—Commencing on the east line of Seventh avenue, 225 feet south from I street; thence south on Seventh avenue, 150 feet by 240 feet in depth, to Sixth avenue. Outside Land Reservation.

Block 690, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from I street; thence south on Nineteenth avenue, 150 feet by 240 feet in depth, to Eighteenth avenue. Outside Land Reservation.

Block 696, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from I street; thence south on Twenty-fifth avenue, 150 feet by 240 feet in depth, to Twenty-fourth avenue. Outside Land Reservation.

Block 702, west of 1st Av.—Commencing on the east line of Thirty-first avenue, 225 feet south from I street; thence south on Thirty-first avenue, 150 feet by 240 feet in depth, to Thirtieth avenue. Outside Land Reservation.

Block 708, west of 1st Av.—Commencing on the east line of Thirty-seventh avenue, 225 feet south from I street; thence south on Thirty-seventh avenue, 150 feet by 240 feet in depth, to Thirty-sixth avenue. Outside Land Reservation.

Block 714, west of 1st Av.—Commencing on the east line of Forty-third avenue, 225 feet south from I street; thence south on Forty-third avenue, 150 feet by 240 feet in depth, to Forty-second avenue. Outside Land Reservation.

Block 775, west of 1st Av.—Commencing on the east line of Eighth avenue 225 feet south from K street; thence south on Eighth avenue, 150 feet by 240 feet in depth, to Seventh avenue. Outside Land Reservation.

Improvements.—One-story frame building. Erected in 1872. Cost, \$2,750.

Block 780, west of 1st Av.—Commencing on the east line of Thirteenth avenue, 225 feet south from K street; thence south on Thirteenth avenue, 150 feet by 240 feet in depth, to Twelfth avenue. Outside Land Reservation.

Block 786, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from K street; thence south on Nineteenth avenue, 150 feet by 240 feet in depth, to Eighteenth avenue. Outside Land Reservation.

Block 792, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from K street; thence south on Twenty-fifth avenue 150 feet by 240 feet in depth, to Twenty-fourth avenue. Outside Land Reservation.

Block 798, west of 1st Av.—Commencing on the east line of Thirty-first avenue, 225 feet south from K street; thence south on Thirty-first avenue, 150 feet by 240 feet in depth, to Thirtieth avenue. Outside Land Reservation.

Block 804, west of 1st Av.—Commencing on the east line of Thirty-seventh avenue, 225 feet south from K street; thence south on Thirty-seventh avenue, 150 feet by 240 feet in depth, to Thirty-sixth avenue. Outside Land Reservation.

Block 810, west of 1st Av.—Commencing on the east line of Forty-third avenue, 225 feet south from K street; thence south on Forty-third avenue, 150 feet by 240 feet in depth, to Forty-second avenue. Outside Land Reservation.

Block 872, west of 1st Av.—Commencing on the east line of Thirteenth avenue, 225 feet south from M street; thence south on Thirteenth avenue, 150 feet by 240 feet in depth, to Twelfth avenue. Outside Land Reservation.

Block 878, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from M street; thence south on Nineteenth avenue, 150 feet by 240 feet in depth, to Eighteenth avenue. Outside Land Reservation.

Block 884, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from M street; thence south on Twenty-fifth avenue, 150 feet by 240 feet in depth, to Twenty-fourth avenue. Outside Land Reservation.

Block 890, west of 1st Av.—Commeneing on the east line of Thirty-first avenue, 225 feet south from M street; thence south on Thirty-first avenue, 150 feet by 240 feet in depth, to Thirtieth avenue. Outside Land Reservation.

Block 896, west of 1st Av.—Commeneing on the east line of Thirty-seventh avenue, 225 feet south from M street; thence south on Thirty-seventh avenue, 150 feet by 240 feet in depth, to Thirty-sixth avenue. Outside Land Reservation.

Block 902, west of 1st Av.—Commeneing on the east line of Forty-third avenue, 225 feet south from M street; thence south on Forty-third avenue, 150 feet by 240 feet in depth, to Forty-second avenue. Outside Land Reservation.

Block 953, west of 1st Av.—Commeneing on the east line of Ninth avenue, 225 feet south from O street; thence south on Ninth avenue, 150 feet; east 181 11-12 feet, to the boundary line of the San Miguel Rancho; northeast along said boundary line 147 5-12 feet to Eighth avenue; north on Eighth avenue 14½ feet; west 240 feet, to the place of beginning. Outside Land Reservation.

Block 957, west of 1st Av.—Commeneing on the east line of Thirteenth avenue, 225 feet south from O street; thence south on Thirteenth avenue, 150 feet by 240 feet in depth, to Twelfth avenue. Outside Land Reservation.

Block 963, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from O street; thence south on Nineteenth avenue 150 feet, by 240 feet in depth to Eighteenth avenue. Outside Land Reservation.

Block 969, west of 1st Av.—Commeneing on the east line of Twenty-fifth avenue, 225 feet south from O street; thence south on Twenty-fifth avenue 150 feet, by 240 feet in depth to Twenty-fourth avenue. Outside Land Reservation.

Block 975, west of 1st Av. Commeneing on the east line of Thirty-first avenue, 225 feet south from O street; thence south on Thirty-first avenue 150 feet, by 240 feet in depth to Thirtieth avenue. Outside Land Reservation.

Block 981, west of 1st Av.—Commeneing on the east line of Thirty-seventh avenue, 225 feet south from O street; thence south on Thirty-seventh avenue 150 feet, by 240 feet in depth to Thirty-sixth avenue. Outside Land Reservation.

Block 987, west of 1st Av.—Commeneing on the east line of Forty-third avenue, 225 feet south from O street; thence south on Forty-third avenue 150 feet, by 240 feet in depth to Forty-second avenue. Outside Land Reservation.

Block 1038, west of 1st Av.—Commencing on the east line of Thirteenth avenue, 225 feet south from Q street; thence south on Thirteenth avenue 150 feet, by 240 feet in depth to Twelfth avenue. Outside Land Reservation.

Block 1044, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from Q street; thence south on Nineteenth avenue 150 feet, by 240 feet in depth to Eighteenth avenue. Outside Land Reservation.

Block 1050, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from Q street; thence south on Twenty-fifth avenue 150 feet, by 240 feet in depth to Twenty-fourth avenue. Outside Land Reservation.

Block 1056, west of 1st Av.—Commencing on the east line of Twenty-first avenue, 225 feet south from Q street; thence south on Thirty-first avenue 150 feet, by 240 feet in depth to Thirtieth avenue. Outside Land Reservation.

Block 1062, west of 1st Av.—Commencing on the east line of Thirty-seventh avenue, 225 feet south from Q street; thence south on Thirty-seventh avenue 150 feet, by 240 feet in depth to Thirty-sixth avenue. Outside Land Reservation.

Block 1068, west of 1st Av.—Commencing on the east line of Forty-third avenue, 225 feet south from Q street; thence south on Forty-third avenue, 150 feet by 240 feet in depth, to Forty-second avenue. Outside Land Reservation.

Block 1114, west of 1st Av.—Commencing on the east line of Thirteenth avenue, 225 feet south from S street; thence south on Thirteenth avenue, 150 feet by 240 feet in depth, to Twelfth avenue. Outside Land Reservation.

Block 1120, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from S street; thence south on Nineteenth avenue, 150 feet by 240 feet in depth, to Eighteenth avenue. Outside Land Reservation.

Block 1126, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from S street; thence south on Twenty-fifth avenue, 150 feet by 240 feet in depth, to Twenty-fourth avenue. Outside Land Reservation.

Block 1132, west of 1st Av.—Commencing on the east line of Thirty-first avenue, 225 feet south from S street; thence south on Thirty-first avenue, 150 feet by 240 feet in depth, to Thirtieth avenue. Outside Land Reservation.

Block 1138, west of 1st Av.—Commencing on the east line of Thirty-seventh avenue, 225 feet south from S street; thence south on Thirty-seventh avenue, 150 feet by 240 feet in depth, to Thirty-sixth avenue. Outside Land Reservation.

Block 1144, west of 1st Av.—Commencing on the east line of Forty-third avenue, 225 feet south from S street; thence south on Forty-third avenue, 150 feet by 240 feet in depth, to Forty-second avenue. Outside Land Reservation.

Block 1186, west of 1st Av.—Commencing on the east line of Fourteenth avenue, 225 feet south from U street; thence south on Fourteenth avenue, 150 feet; east $92\frac{1}{2}$ feet to the boundary line of the San Miguel Rancho; northeast along said boundary line, 161 1-6 feet; west 152 10-12 feet, to the place of beginning. Outside Land Reservation.

Block 1191, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from U street; thence south on Nineteenth avenue, 150 feet by 240 feet in depth, to Eighteenth avenue. Outside Land Reservation.

Block 1197, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from U street; thence south on Twenty-fifth avenue, 150 feet by 240 feet in depth, to Twenty-fourth avenue. Outside Land Reservation.

Block 1203, west of 1st Av.—Commencing on the east line of Thirty-first avenue, 225 feet south from U street; thence south on Thirty-first avenue, 150 feet by 240 feet in depth, to Thirtieth avenue. Outside Land Reservation.

Block 1209, west of 1st Av.—Commencing on the east line of Thirty-seventh avenue, 225 feet south from U street; thence south on Thirty-seventh avenue, 150 feet by 240 feet in depth, to Thirty-sixth avenue. Outside Land Reservation.

Block 1215, west of 1st Av.—Commencing on the east line of Forty-third avenue, 225 feet south from U street; thence south on Forty-third avenue, 150 feet by 240 feet in depth, to Forty-second avenue. Outside Land Reservation.

Block 1258, west of 1st Av.—Commencing on the east line of Nineteenth avenue, 225 feet south from W street; thence south on Nineteenth avenue, 150 feet by 240 feet in depth, to Eighteenth avenue. Outside Land Reservation.

Block 1264, west of 1st Av.—Commencing on the east line of Twenty-fifth avenue, 225 feet south from W street; thence south on Twenty-fifth avenue, 150 feet by 240 feet in depth, to Twenty-fourth avenue. Outside Land Reservation.

Block 1276, west of 1st Av.—Commencing on the east line of Thirty-seventh avenue, 225 feet south from W street; thence south on Thirty-seventh avenue 115½ feet; east 240 5-12 feet; north on Thirty-sixth avenue 128 10-12 feet; west 240 feet to the place of beginning. Outside Land Reservation.

Block 1282, west of 1st Av.—Commencing on the east line of Forty-third avenue, 225 feet south from W street; thence south on Forty-third avenue, 11¼ feet; east 240 5-12 feet; north on Forty-second avenue 24¾ feet; west 240 feet to the place of beginning. Outside Land Reservation.

Potrero Block 39.—Commencing on the east line of York street, 150 feet south from Solano street; thence south on York street, 100 feet by 200 feet in depth, to Hampshire street. Van Ness Ordinance.

Potrero Block 46.—Commencing on the east line of Hampshire street, 150 feet south from Alameda street; thence south on Hampshire street, 100 feet by 200 feet in depth, to Jersey street. Van Ness Ordinance.

Potrero Block 85.—Commencing on the east line of Utah street, 100 feet south from Yolo street; thence south on Utah street, 100 feet by 200 feet in depth, to Nebraska street. Lots Nos. 13, 14, 15, 16, 25, 26, 27 and 28.

Donated by Geo. Treat; also tax deed from Hugh Whittell, January 6, 1873, \$308.29; also certificate of tax sale from S. F. Sinclair, May 24, 1872, \$9.40.

Improvements.—One-story frame building, 29½ by 46 feet. Erected in 1864. Cost, \$3,517.

Potrero Block 127.—Commencing on the east line of Vermont street, 140 feet south from Solano street; thence south on Vermont street, 120 feet by 200 feet in depth, to Kansas street.

Donated by Nathan Porter, E. D. Sawyer and John Bensley, Oct. 27, 1863.

Potrero Block 149.—Commencing on the east line of Kansas street, 141½ feet north from Colusa street; thence north on Kansas street, 150 feet by 200 feet in depth, to Rhode Island street. Outside Land Reservation.

Potrero Block 163.—Commencing on the east line of Rhode Island street, 150 feet south from Mariposa street; thence south on Rhode Island street, 100 feet by 200 feet in depth, to De Haro street. Van Ness Ordinance.

Potrero Block 226.—Commencing on the east line of Arkansas street, $141\frac{1}{2}$ feet south from Nevada street; thence south on Arkansas street, 150 by 200 feet in depth, to Connecticut street. Outside Land Reservation.

Potrero Block 254.—Commencing on the east line of Connecticut street, $141\frac{1}{2}$ feet north from Colusa street; thence north on Connecticut street, 150 feet by 200 feet in depth, to Missouri street. Outside Land Reservation.

Potrero Block 265.—Commencing on the east line of Missouri street, $141\frac{1}{2}$ feet north from Sierra street; thence north on Missouri street, 150 feet by 200 feet in depth, to Texas street. Outside Land Reservation.

Potrero Block 287.—Commencing on the east line of Texas street, $141\frac{1}{2}$ feet south from Nevada street; thence south on Texas street, 150 feet by 200 feet in depth, to Mississippi street. Outside Land Reservation.

Potrero Block 373.—Commencing on the east line of Minnesota street, $141\frac{1}{2}$ feet north from Sierra street; thence north on Minnesota street, 150 feet by 200 feet in depth, to Tennessee street. Outside Land Reservation.

Potrero Block 391,—Lot 1. On northwest corner of Kentucky and Napa streets, 100 by 100 feet.

Donated by R. Dyson, I. W. Raymond, J. Ward, Samuel Gilmore, J. L. Riddle and G. E. Eaton, May 18, 1864.

Lot 2. Commencing on the west line of Kentucky street, 100 feet south from Napa street; thence south on Kentucky street 50 feet, by 100 feet in depth.

Purchased from Samuel Gilmore, October 22, 1864, for \$200.

Improvements.—One-story frame building, $29\frac{1}{2}$ by 46 feet. Erected in 1865; cost, \$2,180. Enlarged in 1871 at a cost of \$1,131.

South San Francisco Homestead, Block 289.—Lot 1. Commencing at the west corner of Fourteenth avenue and L street; thence northwest on Fourteenth avenue 75 feet, by 100 feet in depth on L street.

Donated by James Atkinson, September 12, 1868.

Lot 2. Commencing on the southwest line of Fourteenth avenue, 75 feet northwest from L street; thence northwest on Fourteenth avenue 75 feet, by 100 feet in depth.

Purchased from William H. Bryan, June 16, 1869, for \$2,000.

Improvements.—Two-story frame building, $58\frac{1}{2}$ by $94\frac{1}{4}$ feet. Erected in 1869; cost, \$12,775.

Fairmount Tract, Block 29.—Lot 1. Commencing on the east line of Chenery street, 200 feet north from Randall street; thence north on Chenery street 62 feet, by 125 feet in depth.

Lot 3. Commencing on the west line of the Southern Pacific Railroad, 183 feet north from Randall street; thence north on the Southern Pacific Railroad 62 feet, by 175 feet in depth.

Purchased from Thomas Cubbins, August 23, 1865, for \$550.

Lot 2. Commencing on the east line of Chenery street, 150 feet north from Randall street; thence north on Chenery street 50 feet, by 125 feet in depth.

Purchased from H. P. Livermore, August 3, 1865, for \$200.

Improvements.—One-story frame building, $29\frac{1}{2}$ by 46 feet. Erected in 1865; cost, \$2,698.

Precita Valley Lands, Lots Nos. 39, 40, 51 and 52, being subdivisions of Lots 247, 248, 249, 250, 251, 252 and 253.—Commencing on the east line of California avenue, 210 feet north from Eve street; thence north on California avenue 50 feet, by 132 feet in depth, to Adam street. Donated by Vitus Wackendreuer, August 19th, 1862.

Railroad Homestead, Lot 4, Block W.—Commencing on the north line of Montana street, 200 feet east of Marengo street; thence east 200 feet on Montana street, by 125 feet in depth.

Donated by Railroad Homestead Association, May 21st, 1867.

San Miguel Rancho.—Commencing at a point on the east line of the San Miguel and Ocean House road at its intersection with the south line of Glasgow's lot; thence south on the San Miguel and Ocean House road 100 feet, by 240 feet in depth.

Donated by F. L. A. Pioche and Samuel L. Theller, November 22, 1870.

Improvements.—One-story two-class frame building. Erected in 1871; cost, \$2,695.

West End Map, No. 2, Lot 4, Block 23.—Commencing on the southeast line of Porter avenue, 160 feet northeast from Worden avenue; thence northeast on Porter avenue 80 feet; southeast 168 feet to the County road; southwest on the County road 82 feet; northwest 150 feet to the place of beginning.

Donated by Harvey Brown, September 2, 1862.

Improvements.—One-story frame building, 35 by 24 feet. Erected in 1867; cost, \$1,585.

Paul Traet Homestead, Block 26, Lot 7.—Commencing on the east line of Berlin street, 100 feet south from Irving street; thence east 120 feet; south $00\frac{3}{4}$ feet; west 121 feet to Berlin street; north on Berlin street, 85 1-6 feet to the place of beginning.

Donated by Paul Traet Homestead Association, January 14, 1873.

Horner's Addition, Block 163.—Lot southwest corner of Noe and Temple streets, 114 feet on Noe street by 160 feet on Temple street.

Lots 13 and 14, Block L, Pacific Savings and Homestead Association.—Received in exchange for lot in Potrero Block No. 122, June 19, 1874.

Improvements.—One-story frame building. Erected in 1874; cost, \$6,950.

University Mound Survey, Block 29.—Commencing on the west line of Williams street, 250 feet south from Henry street; thence south 50 feet by 120 feet in depth; subdivisions 16 and 17.

Donated by residents, February 20, 1877.

Improvements.—One-story frame building. Erected in June, 1877; cost, \$2,194.

Martin

